

RUSSIA'S GREAT LEAP DOWNWARD

— Nicholas Eberstadt & Apoorva Shah —

In late 2001, a now-famous financial study from Goldman Sachs predicted that the global share of gross domestic product (GDP) among four of the world's largest emerging economies, Brazil, Russia, India, and China (dubbed the "BRICs"), was set to rise in the decades ahead, and that with this rise, these "BRICs" would achieve increasing influence and wield greater leadership in both the world economy and global decision making.¹ "BRIC" became an everyday term for students of world finance and international affairs, and the prescience of the report seemed affirmed by the continuing rapid rates of growth in all four of these economies. But the BRIC report, perhaps in its enthusiasm, did not stop to reflect upon the importance of these countries' human resources to their future growth prospects. If it had, it would have been immediately apparent that one of the BRIC countries was not like the others.

While Brazil, China, and India posted impressive rates of economic growth over the past decade in spite of rising energy prices, largely through policies that capitalized upon the rising levels of health and education in their workforce, Russia appears to have followed almost a very different trajectory. As energy prices soared, Russia's enormous oil and gas reserves allowed it to grow robustly over the last decade, but these windfalls from natural resources were not reinvested in the country's human resource base. That looks to be a criti-



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cal error. For the Russian Federation faces a serious demographic challenge, a fact perhaps more clearly exposed today, in light of the onset of the ongoing global economic crisis. Russia's human resource crisis is not new—but it is becoming more acute. The country must eventually confront this human security challenge. It is a challenge with strategic as well as economic implications. The reverberations of Russia's success—or failure—in meeting this challenge, furthermore, are likely to be felt well beyond the borders of the Russian Federation.

The demographics of decline

Since 1992, Russia has seen a steady decline in its population: today, in fact, Russia's population total, which recently dropped below 142 million, is roughly 7 million people fewer than it had been at the end of the Communist era.² Of course this sort of population drop is not wholly unprecedented; Russia has experienced population declines before. But the current depopulation is quite different from previous, temporary drops. The present one has continued for more than twice as long as the depopulation that took place following the Bolshevik Revolution, and more than three times as long as that which occurred over the course of and following World War II. Furthermore, the current depopulation has transpired during a time of relative social and political stability.

By historical Russian standards, the dissolution of the Soviet Union and the transition following the collapse unfolded with remarkably little violence or bloodshed. Today's depopulation is not the result of mass terror or civil war. In fact, it is a remarkably

“routine” depopulation, proceeding under stable and orderly conditions. But, correspondingly, it is quite difficult to predict when or whether the current downturn will end.

Trends in births and deaths in Russia before and after the fall of the Soviet Union help to put the country's depopulation in perspective. During the last sixteen years of Soviet rule (from 1976 to 1991), 36.0 million births were recorded in Russia proper. In the sixteen years following the fall of the USSR, there were only 22.3 million—a drop of 40 percent. On the other hand, 24.6 million Russians died between 1976 and 1991, whereas in the sixteen years following 1991, 34.7 million Russians died—an oddly symmetric 40 percent increase.

As of mid-year 2005, the estimated population of Russia was approximately 143 million. For the year 2030, the United Nations Population Division, in its “medium variant projections” envisions that the Russian population will be 128 million, while the U.S. Census Bureau projects 124 million. If these projections prove accurate (and, of course, there is no guarantee of that), then Russia will have seen almost forty years of constant population decline between 1990 and 2030. At that point, Russia (under current territorial boundaries) would have become the world's thirteenth most populous country, having fallen from 6th place in less than four decades.

Nevertheless, Russia's current leadership has set ambitious standards of economic achievement in the face of such demographic obstacles. In 2007, Russian officials predicted that the country's gross domestic product would quadruple over the next two decades, allowing the country to become the world's fifth largest economy by 2020. This vision

has been embraced and endorsed by both President Dmitry Medvedev and former President (and current premier) Vladimir Putin. Regardless of any growing desire to bolster the country's geopolitical and economic strength, Russia's political elites must brace for an almost inevitable loss in the country's global population share.

If it is not the war or terror, widespread disease or famine, then what has precipitated Russia's demographic decline? To what phenomenon can these causal factors be attributed? It appears as if the source of the country's human losses is linked to two separate but interrelated factors: steep fertility decline and high mortality rates. These two variables help to explain much of the post-Communist Russian experience. Elucidating them can provide some insight into the challenges the country faces in the years ahead.

Falling fertility

Since the fall of the Soviet Union, Russia has seen a distinct transformation in the family, induced by widespread changes in the childbearing patterns of women. Of course, if the collapse of birthrates following the Communist period had been limited to the first few years after the dissolution of the Soviet Union, then they might be considered merely a "transition shock." But by now, Russia has been a post-Communist state for almost two decades, yet very low birth rates continue to be the norm across most of the country.

In the Soviet era following World War II, the country's total fertility rate (TFR), which calculates the total number of births an average woman would be expected to have as she passes through her childbearing years, generally exceeded 2.0

(as a rule of thumb, demographers usually think of 2.1 as "replacement level" fertility in Western societies), and during the early years of Mikhail Gorbachev's tenure, TFRs exceeded 2.2. But after the fall of the Soviet state, the country's TFR fell below 2.0 and has not returned to that level since. Its lowest level to date was in 1999, when the TFR was 1.17, practically half the level it was at in 1987. Six years later, in 2005, the rate had crept up only slightly, to 1.3—a full 40 percent lower than the Gorbachev era peak.

In most societies, as families have fewer children, the "relative value" of newer generations of children increases, facilitating and augmenting investments in the children's education, health care, and so forth. Given their newfound scarcity, Russia's children should also, all else being equal, receive more time and attention from parents and other caretakers.³ Yet Russia today provides evidence quite the contrary to this assumption. Despite increasing per capita income, there is evidence from a variety of sources to the effect that the well-being of Russian children has *decreased* over the last decade *along with* a decrease in fertility levels.

Not all the news about children in Russia, of course, is bad. According to UNICEF, early childhood mortality and child nutrition trends have generally, albeit inconsistently, improved since the fall of the Soviet Union. Child immunizations are higher today than during the Communist era.⁴ For the period after 1998, there has also been a reported decrease in the prevalence of measured "child poverty" in Russia.

Yet at the same time, there have been a fair number of adverse signs with regard to children's well-being. According to UNESCO, net enroll-

ment rates for primary-school-aged children were significantly lower in 2003/04 (91 percent) than in 1990/01 (99 percent).⁵ In other words, universal primary education no longer appears to be a given fact of Russian life. Gross enrollment ratios for lower secondary education also reportedly declined between 1998/99 and 2003/04 from 92 to 89 percent, despite strong concurrent economic growth.

The coupling of decreasing fertility trends with reductions in educational attainment mean that there will be a drop in both the quantity and, in an economic sense, perhaps also the quality of the working-age population in Russia over the next decades. From 2005 to 2030, the proportion of the Russian working-age population—those aged fifteen to sixty-four—is expected to fall by one-fifth, or approximately 20 million.⁶ The steepest decrease would occur among the youngest Russians; those aged fifteen to twenty-nine (this is the cohort that would be normally expected to have the highest levels of education and training). It is one of the signs of Russia's *de facto* "disinvestment" in its human capital, which portends mounting impediments to long-term economic progress.

But fall-offs in fertility do not just induce a decline in the number of citizens of working age, they also cause population aging. The median age and percentage of older citizens in a society is driven mainly by birth rates, which set the "base" of the population pyramid. Due to Russia's birth trends, in which the base of the pyramid has been sharply shrinking, the country has already become an "aged" society by UN benchmarks. Between 2005 and 2030, the median age of Russia's working-age population is projected to rise by approximately four years—to forty-two.⁷

The sixty-five-plus population is expected to account for 20 percent or more of the country's population by 2030. It is not a stretch to expect that these seniors will be much less fit for employment than the elderly in the West. This inevitably raises the question: who will support Russian's seniors when they're sixty-four?

Yet changing fertility trends and an increasingly aged society are only a part of a wider and more serious depopulation story. The Russian work force also faces the challenge of declining health standards and severe excess mortality.

Demographic roulette

Since 1992, "excess mortality" in Russia—calculated against the hardly exacting benchmark of late Soviet-era survival schedules—has resulted in the loss of hundreds of thousands of lives each year. And the health problems the country faces today have not crept up unexpectedly—they have been gathering steadily, almost relentlessly, for the past fifty years.

The end of the USSR precipitated significant economic and political changes, perhaps the most important of the 20th century. Yet Russia's public health standards have remained relatively static before and after the end of Communism. In fact, the first fifteen years following the transition were by many standards worse than the period leading up to and before the collapse of the Iron Curtain. It may sound implausible, but it is true: overall life expectancy at birth in Russia is no higher today than it was in the late 1950s, half a century ago. For men, indeed, it is actually lower today than it was in the late 1950s.⁸

According to the estimates and projections of the U.S. Census Bureau, Russian life expectancy was thought

to rank number 164 out of 226 countries in 2007. When we exclude developed countries and territories, the ranking would barely improve at 109 out of 171 countries. While Russia's females fare slightly better, Russian males are ranked abysmally at 182 out of 226 countries.

Put this in perspective: Russia's overall life expectancy at birth in 2007 was estimated to fall below that of Bolivia—South America's poorest and least healthy country; life expectancy was thought to be higher in Iraq, India, Nicaragua, and Egypt. Males in Russia would compare with their counterparts in Ghana and Eritrea in life spans—and they would fall well below men in Pakistan.

The Russian experience grates against conventional wisdom about the progress of global health and social standards over the last century. It is unprecedented for a well-educated, modern European society to mimic mortality rates of a Third World country. It is all the more confusing considering that Russian per capita income grew vibrantly during this same period of health stagnation.

Since Russia is an urbanized society, it is useful to make a comparison with urban areas in its BRIC counterparts—China, Brazil, and India. Life expectancy for males and females in urban Russia was a little more than 67 years in 2006; St. Petersburg's level was over a year-and-a-half higher, and Moscow approximately four-and-a-half years higher. But the average life expectancy in China's cities was over 75 years, almost eight years higher than in Russian cities. Men and women in Beijing had a six-year advantage in life expectancy over their counterparts in Moscow, and almost a decade (nine years) separated both males and females in Shanghai from St. Petersburg.

While Brazil's official statistical agency does not publish specific life expectancy for the country's urban population, three of the country's regions—Brasília, the state of São Paulo and the state of Rio de Janeiro—are almost entirely urban and therefore can be used to compare with urban areas in Russia.⁹ To go by those indicators, overall life expectancy at birth in Brazil's largest urban areas in 2005 was much higher than both St. Petersburg and Moscow in 2006.

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It is even more evocative to juxtapose Russia and India. It appears as if overall urban life expectancy between 1992 and 1996 in India was slightly higher than it was in Russia (66.3 years vs. 65.7 years).¹⁰ Using the 2001 All-India census and vital registration data, demographers in India have estimated urban life expectancy for males and females in the country had risen to 67.9 years between 1998 and 2002. In that same period, urban Russia's level was at 66.1 years; by 2006, Russian urban life expectancy had merely crept up to 66.3 years. In other words, urban India seems to enjoy a higher level of overall life expectancy at birth than urban Russia.

According to the statistical figures, overall life expectancy in Delhi and St. Petersburg were almost the

same, while life expectancy in Chennai (Madras) and Kolkata (Calcutta) is significantly higher than in either St. Petersburg or Moscow. These data points are all the more shocking considering the high level of poverty in India, where, according to the World Bank, approximately 40 percent of urban Indians lived on less than \$1 a day in 2002.¹¹

The steady and already pronounced population decline in Russia, precipitated by steep declines in fertility and jumps in mortality rates, portends serious risks to the country's political economy in the generation ahead.

There are multiple ways to quantify the demographic consequences of Russia's great leap downward from the public health league of more developed countries to the ranks of less developed countries. "Excess mortality" is perhaps a first indicator for assessing this demographic toll.

"Excess mortality" is defined as the total difference in deaths that would have occurred within a given population over a specific period of time if, instead of following its own mortality schedules, it followed the alternative and less severe patterns of another society. The mortality estimates at the Human Mortality Database allow us to make such "excess mortality" estimates for Russia.¹²

The first benchmark can be the period of 1986-87 during the Gorbachev era—the "best" period so far by Russian standards, even though this is hardly impressive compared to European or global benchmarks. But it will help show the extent of the country's health retrogression. By this

yardstick, "excess mortality" would have amounted to a total of 6.6 million premature deaths between 1992 and 2006, of which 4.9 million would have been men and 1.7 million women.

During World War I, the Russian empire suffered about 1.8 million military deaths plus 1.5 million civilian deaths, according to Soviet-era demographer Boris T. Uralnis.¹³ If Uralnis' estimates are compared to the country's excess mortality in the post-Communist era, the number of excess Russian deaths in the period following the fall of the Iron Curtain would have been over twice as high as those incurred during the period of active combat in World War I. Male excess mortality during the period of 1992-2006 would have been over two and a half times higher than the number of total Russian combat deaths in World War I. It is, to be sure, important to distinguish between premature death due to war and premature death under peaceful conditions of social and political order. Regardless, by these benchmarks it is evident that premature mortality during the post-Soviet era to date would be higher than the corresponding death toll during World War I.

Another way to put the premature mortality of Russians in perspective is to compare it with current population trends in the country. The estimate of 6.6 million excess deaths can be weighed in relation to Russia's actual population decline of 6.3 million during the same period from 1992-2006. The striking fact is that if Russia had able to maintain the hardly exacting survival schedules it achieved in the late Soviet era, the country's two-decade long population decline would not have occurred.

The Russian health failure, it appears, has been concentrated among persons who would normally be con-

sidered to be in their “prime of life.” Is it possible to make sense of this public health retrogression, one which has occurred mainly in a literate and urban society during a period of relative peace? Cause-of-death data in Russia help to clarify this phenomenon.

Death rates in Russia have not only been abnormally high, they have been erratic. Consider that Russia and the new European Members (EU) since 2004 (which, with few exceptions, are composed of countries of the former Soviet bloc) had effectively the same death rates at the fall of Communism. While death rates in countries of the former Soviet bloc have fallen consistently since then, Russian rates have followed a distinctly different track. After they are standardized for age structure, death rates in Russia in 2006 were about 50 percent higher than those of the new EU and over twice as high as those of EU members from Western Europe.

One troubling aspect of the current Russian mortality crisis is the high prevalence of HIV/AIDS, drug-resistant tuberculosis, and other communicable diseases. While Goskomstat, Russia's official statistics agency, may underestimate the toll of these diseases on Russia, infectious and parasitic diseases do not count as a major explanation of the health differences between Russia and the West. Death rates from communicable diseases are much higher in Russia than in the largely former Soviet bloc EU countries, yet the difference only accounts for two percent of the overall mortality gap between Russia and Western Europe. And when Russia is put into international perspective, reported death rates from communicable diseases correspond relatively closely to the country's per capita income level.

Cardiovascular disease (CVD), on the other hand, is where Russian health patterns stray from the path. In 2005, Russian CVD levels were almost four times as high as those in Western Europe. In most societies, CVD is a disease of affluence—as countries become richer, their CVD rates go up. But as income continues to rise, private and public investments in health care and prevention bring these rates down. Russia, however, is nowhere close to this path. Its CVD mortality levels are twice as high as would be predicted by its income level. In fact, few societies have ever reached the levels of CVD mortality that Russia reports today.

The mismatch between the Russian regime's expectations for demographic, health, and economic performance and the likely outcomes in these areas creates a tangible possibility for more tension in the Kremlin's relations with the West, and particularly with the United States.

But Russians today die not only from excess levels of chronic disease; they also suffer an abnormally high level of mortality from “external” causes such as injury or poisoning. It is not a stretch to factor the Russians' long and troublesome romance with the vodka bottle into these statistics. In 2006, death rates from external causes in Russia were almost three times higher than those in the new EU. Compare this internationally: in 2002, according to the World Health Organization, only six countries suffered from external cause death rates higher than 200 deaths per 100,000 people. One of them, of course, was

Russia. The others were Burundi, Liberia, the Republic of the Congo, Sierra Leone, and Angola—in other words, conflict or post-conflict Sub-Saharan African societies.

The steady and already pronounced population decline in Russia, precipitated by steep declines in fertility and jumps in mortality rates, portends serious risks to the country's political economy in the generation ahead. But instead of bolstering investment in Russian human capital, the Putin-Medvedev team has continued to rely on oil and gas revenues to wield influence and preserve Russia's path as an emerging power.

The “resource curse”

A resource-driven economic strategy does not appear to be sustainable for promoting long-term Russian development, much less accruing strategic power and international influence. As of 2006 (the most recent year for which such international comparisons can be offered) Russia's estimated share of global GDP—a crude measure of international power—was not trending downward. Yet it remained at less than 2.5 percent of total world output, almost half its share from 1940.¹⁴ (Consider that the United States' share—20 percent—has remained essentially unchanged since 1940.) Russia's economy may be rich in natural resources, but it is manifestly strapped today when it comes to human resources.

Dependence on natural resources for state finances and economic growth also places some limits on economic expansion—notwithstanding the possibility of a more serious economic downturn in the event of a sustained fall in energy prices, hardly an impossible event considering the path of energy prices in the global economic crisis. The current economic

recession has stressed all economies, but it has taken an especially hard toll on Russia's macro-economy. GDP growth in Russia between 1999 and 2008 was strong—averaging seven percent per year—but this was driven largely by windfalls from the rise in natural resource prices in world markets during those years. This year, the economy is expected to decline by as much as seven or eight percent, potentially one of the sharpest drops in the world.¹⁵

From the standpoint of exports and public finances, Russia today appears to be an “enclave economy,” overwhelmingly reliant on its natural resource sector. Excluding natural resource exports, mainly oil and gas, Russia's international economic performance is akin to that of a less developed country. Indeed, as of 2007, Russia's non-resource exports were approximately the same as those of Ireland—even though Russia's population is more than 30 times larger. Russia's commercial service exports were under half those of India.

Coping with a dying Russia

The mismatch between the Russian regime's expectations for demographic, health, and economic performance and the likely outcomes in these areas creates a tangible possibility for more tension in the Kremlin's relations with the West, and particularly with the United States. How will the Putin-Medvedev government react to any domestic challenges that could accompany the looming and inevitable “reality check” with regard to its demographic troubles? The current Kremlin leadership has displayed a generally less cooperative and more antagonistic posture towards the West than its immediate predecessors. If Moscow continues

a resource-driven development strategy in the coming years, what sort of international behavior should we expect from a brittle, authoritarian and nationalistic Russian leadership at the point when (not if) its grand strategy falters?

There is nothing immutable about the Russian Federation's current development approach, of course. Part of the challenge ahead is to understand the potential for "win-win" possibilities between Russia and the West, which would begin with a better understanding of the potential for a more human-resource-oriented approach for the Russian political economy. Until then, the demographic hurdles that Russia has faced since the fall of Communism will continue to challenge the country's economic potential and, even worse, threaten its most valuable resource: human capital.

We in the West should have an interest in helping the Russian people overcome their current human resource crises. After all, what makes them miserable may in the end serve to impoverish us all.



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2. Goskomstat (Moscow), "Demographic Yearbook of Russia (2004-2007)," n.d., <http://www.gks.ru>.
3. The relationship between family income, family size, and investments in children has been investigated systematically in the U.S. and many other countries by what is known as the "new family economics" school, whose intellectual pioneers include Nobel Prize-winning economists Theodore W. Schultz and Gary S. Becker. With rising incomes and falling fertility levels, "new family economics" would ordinarily predict significant increases in the "human capital investment" for Russia's rising generation.
4. United Nations Children's Fund, *Innocenti Social Monitor 2006: Understanding Child Poverty in South-Eastern Europe and the*

Commonwealth of Independent States (Florence Italy: UNICEF Innocenti Research Centre, 2006), http://www.unicef-irc.org/publications/pdf/ism06_eng.pdf.

5. Ibid.
6. U.S. Census Bureau, "International Database," n.d., www.census.gov/ipc/www/idbacc.html.
7. Ibid.
8. United Nations Secretariat, Department of Economic and Social Affairs, Population Division, "World Population Prospects: The 2008 Revision Population Database," <http://esa.un.org/unpp>.
9. According to official Brazilian data, the states of Rio de Janeiro and São Paulo are both over 90 percent urban; the capital is 96 percent urban. Instituto Brasileiro de Geografia e Estatística (IBGE), *Demographic Census 2000*, http://www.ibge.gov.br/english/estatistica/populacao/censo2000/tabelasgrandes_regioes211.shtm.
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12. University of California-Berkeley and the Max Planck Institute for Demographic Research, "Human Mortality Database," <http://www.mortality.org>.
13. Boris T. Urlanis, *Wars and Population* (Wappingers Falls, NY: Beekman Publishers, 1971), 62-64.
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15. Lidia Kelly and Andrew Langley, "Russia Aims to Lift Economy with Spending Boost as Growth Slows," *Wall Street Journal*, July 14, 2009, <http://online.wsj.com/article/SB124752515309135305.html>.