The Dying Bear

Russia's Demographic Disaster

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December marks the 20th anniversary of the end of the Soviet dictatorship and the beginning of Russia's postcommunist transition. For Russians, the intervening years have been full of elation and promise but also unexpected trouble and disappointment. Perhaps of all the painful developments in Russian society since the Soviet collapse, the most surprising—and dismaying—is the country's demographic decline. Over the past two decades, Russia has been caught in the grip of a devastating and highly anomalous peacetime population crisis. The country's population has been shrinking, its mortality levels are nothing short of catastrophic, and its human resources appear to be dangerously eroding.

Indeed, the troubles caused by Russia's population trends—in health, education, family formation, and other spheres—represent a previously unprecedented phenomenon for an urbanized, literate society not at war. Such demographic problems are far outside the norm for both developed and less developed countries today; what is more, their causes are not entirely understood. There is also little evidence that Russia's political leadership has been able to enact policies that have any long-term hope of correcting this slide. This peacetime population crisis threatens Russia's economic outlook, its ambitions to modernize

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and develop, and quite possibly its security. In other words, Russia's demographic travails have terrible and outsized implications, both for those inside the country's borders and beyond. The humanitarian toll has already been immense, and the continuing economic cost threatens to be huge; no less important, Russia's demographic decline portends ominously for the external behavior of the Kremlin, which will have to confront a far less favorable power balance than it had been banking on.

TOO MUCH MORTALITY

EVEN IN the Soviet years, Russia was less than a paragon of a healthy society. The syndrome of long-term stagnation and then decline in public health, never before seen in an industrialized country, first emerged during the Brezhnev era and continued to dog Russia until the downfall of the communist system. Still, in the late 1980s, the days of Mikhail Gorbachev's perestroika, Russian births exceeded deaths by an average of more than 800,000 per year. But the collapse of communism in Eastern Europe and then of the Soviet Union itself sent a series of demographic shocks reverberating across the Eastern bloc: virtually every former Warsaw Pact country experienced a sharp drop in births and a spike in deaths, as if beset by a sudden famine, epidemic, or war. Most of these perturbations were temporary—but not in Russia, where they proved to be more extreme and more enduring than in virtually any other former communist state.

Post-Soviet Russia has become a net mortality society, steadily registering more deaths than births. Since 1992, according to Rosstat, Russia's federal statistics agency (also known as Goskomstat since Soviet times), about 12.5 million more Russians have been buried than born—or nearly three funerals for every two live deliveries for the past 20 years. Globally, in the years since World War II, there has been only one more horrific surfeit of deaths over births: in China in 1959–61, following Mao Zedong's catastrophic Great Leap Forward.

As a result of this imbalance, Russia has entered into a process of depopulation. Immigration, mainly from neighboring former Soviet states, has cushioned the fall somewhat but has not been able to prevent it. Since 1992, according to official Russian figures, Russia's population

has fallen nearly every year (1993 and 2010 are the exceptions, with the latter experiencing an increase of just 10,000 people). According to these figures, between 1993 and 2010, Russia's population shrank from 148.6 million to 141.9 million people, a drop of nearly five percent. (Russia's 2010 census will eventually adjust the latter total upward by around one million people due to the undercounting of immigrants, but this does not change the overall picture.)

Russia is not alone in its population decline; this is a phenomenon that is increasingly common among modern societies, including affluent democratic ones. Three of the world's G-7 states—Germany, Japan, and Italy—are at the cusp of sustained population decline or have already entered into it. Yet there is a fundamental difference between those countries and Russia: Germany, Japan, and Italy are confronting the prospect of population decline at a time of robust and steadily improving levels of public health. Russia, however, is suffering an extraordinary and seemingly unending mortality crisis, in which health conditions are deteriorating and are further fueling high death rates.

The overall magnitude of Russia's downward health spiral is catastrophic. According to estimates from the Human Mortality Database, a research consortium, overall life expectancy at birth in Russia was slightly lower in 2009 (the latest year for which figures are available) than in 1961, almost half a century earlier. The situation is even worse for Russia's adult population: in 2009, life expectancy at age 15 for all Russian adults was more than two years below its level in 1959; life expectancy for young men sank by almost four years over those two generations. Put another way, post-Soviet Russia has suffered a cumulative "excess mortality" of more than seven million deaths, meaning that if the country could have simply held on to its Gorbachev-era survival rates over the last two decades, seven million deaths could have been averted. This figure is more than three times the death toll World War I inflicted on imperial Russia.

By various measures, Russia's demographic indicators resemble those in many of the world's poorest and least developed societies. In 2009, overall life expectancy at age 15 was estimated to be lower in Russia than in Bangladesh, East Timor, Eritrea, Madagascar, Niger, and Yemen; even worse, Russia's adult male life expectancy was estimated

to be lower than Sudan's, Rwanda's, and even AIDS-ravaged Botswana's. Although Russian women fare relatively better than Russian men, the mortality rate for Russian women of working age in 2009 was slightly higher than for working-age women in Bolivia, South America's poorest country; 20 years earlier, Russia's death rate for working-age women was 45 percent lower than Bolivia's.

IN SICKNESS AND IN POOR HEALTH

WHAT EXPLAINS Russia's gruesome deterioration? Although the country's problems with infectious diseases—most alarming, HIV/AIDS and drug-resistant tuberculosis—are well known, they account for only a small fraction of the awful gap between Western and Russian survival rates. Most immediately, the country's fateful leap backward in health and survival prospects is due to an explosion in deaths from cardiovascular disease and what epidemiologists call "external causes," such as poisoning, injury, suicide, homicide, traffic fatalities, and other violent accidents. Deaths from cardiovascular disease and injuries account for the overwhelming majority of Russia's spike in mortality levels and for nearly the entire gap separating Russia's mortality levels from those of Western countries. At the moment, death rates from cardiovascular disease are more than three times as high in Russia as in western Europe, and Russian death rates from injury and violence have been stratospheric, on par with those in African postconflict societies, such as Liberia and Sierra Leone.

Understanding why such death rates are so high in an urbanized and literate society during peacetime, however, is another question altogether. Russia's deadly romance with the vodka bottle certainly has something to do with it; smoking, diet, and poor preventive and curative health care surely exact their toll as well. According to the World Health Organization, as of 2004, daily smokers accounted for a higher fraction of the adult population in Russia—36 percent—than in any other country in Europe. Yet even given all these factors, Russia's health levels are worse and its death levels are higher than Western public health models would predict. The brute fact is that no one understands why Russians are as unhealthy as they are: it could very well be related to attitudes, viewpoints, and attendant patterns



of behavior that fall under the rubric of "mental health." Without delving into cultural or psychosocial speculation, however, suffice it to say that Russian lifestyles are extremely hazardous to one's health—and result in far higher mortality levels than would be expected of a country at such a relatively high income level.

Another cause of Russians' ill health may lie in education, and Russia's educational woes represent a human resource problem as well. On its face, education should be the saving grace of Russian social policy: after all, as many Russians, if not more, attain higher education as do citizens in many affluent Western countries. According to the Organization for Economic Cooperation and Development, the proportion of Russia's adult population with postsecondary training or degrees is higher than in almost any OECD country. And in the Soviet era, Russian scientists and inventors were renowned for their acumen (albeit mainly in fields with military applications).

But today, Russia's educational system appears to be broken, or at least the country seems unable to derive the expected benefits from it. All around the world, high levels of education generally correspond with better public health, yet Russia bucks this trend: despite boasting a proportion of adults with a postsecondary education that is 30 percentage points higher than the OECD average, Russia nevertheless manages to achieve an overall adult life expectancy that is barely higher than Senegal's. Part of the problem is that although many Russians go to school, college, and university, that schooling is terribly subpar. Standardized international test results reveal that Russian primary and secondary schooling today is at best mediocre. In a 2009 OECD test to measure scholastic performance, Russian students' reading scores were lower than Turkish students', and Turkey itself is near the bottom of the OECD rankings.

Russia's university and higher education system looks even worse. Although Russia today accounts for about six percent of the world's population with a postsecondary education, barely 0.1 percent of the worldwide patents granted by the U.S. Patent and Trademark Office over the last decade and a half were awarded to Russians. This is not some U.S. conspiracy against Russian inventors: the records of the un's World Intellectual Property Organization show that Russia's share of out-of-country patent applications over that same period was less than 0.2 percent of the global total. The picture is hardly better when it comes to the output of scientific papers: the number of articles by Russians in peer-reviewed journals was no higher in 2008 than it had been in 1990, whereas output almost everywhere else in the world rose over those same years. By 2008, Russian authors were publishing far fewer scientific papers than the authors of Russia's BRIC peers: Brazil, China, and India. In effect, Russia stands as a new and disturbing wonder in today's globalized world: a society characterized by high levels of schooling but low levels of health, knowledge, and education.

Family formation trends are a further cause for concern. Between 1987 and 1993, the number of births in Russia dropped precipitously, from 2.5 million to 1.4 million, and it ultimately fell to 1.2 million in 1999, before commencing a turnaround of sorts. In 2010, Russia celebrated 1.79 million births, the highest national total in 20 years. Even so, this total was 25 percent lower than a quarter century earlier and represented a pattern that, if continued, would average out to a long-term fertility level of just over 1.5 births per woman, which is 27 percent below the level required for long-term population stability. Unsurprisingly,

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there is much variation from this average among Russia's many ethnic groups and territories. Ethnic Russians have one of the country's lowest fertility rates, whereas Chechens appear to have the highest, with Chechnya reporting an average of 3.3 births per woman. (Chechnya is an anomaly even among Russia's Muslim-majority regions: most of them, including Chechnya's neighbors, Dagestan and Ingushetia, report sub-replacement fertility levels.)

Beyond birthrates, the way Russians form families and raise children has also undergone tremendous change over the past two decades, which raises questions about the human and economic potential of the country's rising generation. Marriages in today's Russia, for example, are less stable than marriages even in the Soviet era, when the country's divorce rates were already notoriously high. Russia has 56 divorces for every 100 marriages, an imperfect but telling indicator of long-term marriage prospects. Increasing family instability, of course, is a pervasive trend the world over, taking hold in nearly all of Europe and in many other affluent societies. But Russia's single parents must raise their children on far lower income levels than their counterparts in western Europe and North America. Unlike Europeans or Americans, they can count on little support from social welfare programs. Although Western economic theory would suggest that having fewer children means that parents can invest more in each child, the opposite seems to be happening in Russia: despite its steep drop in births, the country has seen small but ominous decreases in primary school enrollment ratios and alarming increases in child abandonment. According to official statistics, more than 400,000 Russian children below 18 years of age lived in residential care as of 2004, meaning that almost one child in 70 was in a children's home, an orphanage, or a state-run boarding school. Russia is also home to a large and growing contingent of homeless children, which, according to some nongovernmental and charitable organizations, could very well exceed the number of youth under institutional care.

TOO LITTLE, TOO LATE

THE KREMLIN understands that Russia's adverse demographic patterns are so abnormal and dangerous that they require strong public

policies to counteract them. Over the last several years, Moscow has introduced new and ambitious programs aimed at reversing the country's downward demographic spiral. In 2006, then President Vladimir Putin unveiled a program that promised up to \$10,000 in credits and subsidies for mothers who had a second or third child. He also issued a decree endorsing a "Concept for Demographic Policy of the Russian Federation up to 2025," which called for Russia's population to stabilize at about 145 million people by 2025, with overall life expectancy at birth at 75 years (versus 67 then) and total fertility rates at 1.95, up 50 percent from the years before the plan was enacted. After 2015, according to the plan, births would exceed deaths in Russia. At the same time that the Kremlin is trying to increase births, it is also implementing new public health measures to drive death rates down, including measures that make alcohol more expensive and harder to purchase.

To judge by its public pronouncements, the Kremlin appears optimistic about its new measures. And indeed, since they have gone into effect, births have risen and death totals have come down; in fact, overall life expectancy in Russia in 2009 was almost 69 years, higher than for any year since the Soviet collapse. Yet such a seemingly positive prognosis flies in the face of some obvious and irreversible demographic realities. For starters, Russia's birth slump over the past two decades has left the country with many fewer potential mothers for the years ahead than the country has today. Women between 20 and 29 years of age bear nearly two-thirds of Russia's babies. In 2025, Russia is projected to have just 6.4 million women in their 20s, 45 percent fewer than today—and there is relatively little mystery in these projections, given that all women who will be between 20 and 29 years in 2025 are already alive. Under such circumstances, simply maintaining current national birth totals would require heroic upsurges in maternity.

At the same time, Russia's population will be rapidly graying. Between 2011 and 2025, according to U.S. Census Bureau projections, the median age in Russia will rise by almost two days every week, from 38.7 years to 42.4 years. The Census Bureau also anticipates that Russians 65 and older, a cohort that now makes up 13 percent of the country's population, will compose almost 19 percent in 2025. As a result of aging alone, per capita mortality in Russia would rise by more than

20 percent if nothing else changed. And given the immense negative momentum in public health among the Russian population today, attaining any long-term improvements in life expectancy promises to be a formidable task. In order to return even to the working-age death rates of 1964, overall mortality levels for Russian men and women would have to drop by more than 25 percent. Such a reversal would be an impressive achievement to attain by 2025, but even if Russia managed this feat, its working-age mortality levels would be higher than those of Honduras today.

Given these realities, Russia is likely to remain a net mortality society for the foreseeable future. Official Russian statistics anticipate a continuing—and widening—gap separating deaths and births between now and 2030. Rosstat envisions a surfeit of 205,000 deaths over births for 2011, rising to more than 725,000 in 2030, with a cumulative total of 9.5 million more deaths than births between 2011 and 2030. Even in Rosstat's most optimistic scenario, the agency projects a mortality surfeit of 2.7 million between 2011 and 2025, reaching 4.7 million by 2030. In these official Russian forecasts, further depopulation can be forestalled only by massive immigration from abroad.

Russia has certainly benefited over the past two decades from a net influx of millions of workers, most of whom hail from former Soviet states in the Caucasus and Central Asia. (The Russian economy has also been helped by its own flow of émigrés overseas, who send billions of dollars of remittances home each year.) But the outlook for future immigration to Russia is clouded: changes in education policy throughout the former Soviet Union mean that today's immigrants from the Caucasus and Central Asia speak less Russian than their parents and thus have more difficultly integrating into Russian society. Meanwhile, the Russian public's attitude toward newcomers from those regions has grown less welcoming.

No less important is domestic migration, especially in terms of the vast expanse of Russia's Far East, a region of over two million square miles and barely six million inhabitants. One-sixth of the population of this harsh and forbidding territory has moved out since 1989, and the exodus continues. Many Russian analysts and policymakers are worried about what will become of this resource-rich area that adjoins a rising and densely populated China. Some Western scholars, such as Maria

Repnikova of the University of Oxford and Harley Balzer of Georgetown University, see great and as yet unexploited opportunities for economic integration between the Russian Far East and its neighbors, especially China. Yet leading Russian demographers have a more dramatic vision: they fear that the region could cease to be part of Russia sometime in the current century, an outcome they see as carrying great geopolitical portent.

THE BEAR LASHES OUT?

Above all, Russia's current demographic patterns will have dreadful consequences for Russians' quality of life. Beyond the effect on individual well-being, the country's demographic decline will have grave implications for economic performance. Although Russia may be blessed with vast natural resources, human resources are what ultimately account for national wealth in today's global economy. Natural resources can augment affluence in societies already relatively rich in human capital, as Canada, the Netherlands, and Norway can attest, but they are no substitute for human capital. In modern times, there is not one example of a raw-materials superpower. And for all its energy riches, Russia earns less in export revenues each year than does Belgium. Although President Dmitry Medvedev warns that Russia must not remain a raw-materials economy and champions his modernization campaign, his administration has done little to position Russia as a knowledge-based economy.

Although the Russian government has acknowledged the country's poor demographic trends, it appears to have both grossly underestimated the severity of the crisis and overestimated the ability of current Kremlin policies to counteract whatever negative effects it thinks may be on the horizon. In 2008, just before the onset of the global economic crisis, the Kremlin unfurled an ambitious economic plan known as Russia 2020. It envisions Russia ascending into the ranks of the top five global economies by 2020 and sets as a goal an average annual economic growth rate of 6.6 percent per year between 2007 and 2020. Even though Russia's per capita output in 2010 was barely higher than it was in 2007, the Kremlin still embraces the Russia 2020 targets as feasible. But attaining those goals would now require an average growth in labor

productivity of more than nine percent per year between 2010 and 2020. Such a tempo of long-term growth in labor productivity was not even reached by China between 1978 and the present day, the greatest period of long-term economic growth ever registered by any country in history.

Rather than focusing on catapulting the Russian economy into the top echelon of global performers, Russian policymakers would be wise to ask what it would take to prevent the Russian economy

from shrinking as a share of total global output in the decades ahead. Between 2005 and 2025, according to U.S. Census Bureau projections, Russia's share of the global working-age population is projected to drop from 2.4 percent to 1.6 percent. This implies that Russia's long-term improvements in labor productivity must average two percent more per year than in the rest of the world. Such prospective accomplishments can hardly

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be taken for granted given Russia's health and educational problems, not to mention the looming pressures of an aging population. If these accomplishments are not met, Russia's share of world economic output, and the country's global economic influence, will diminish in the years ahead. (This is not to say that Russia will grow poorer, but in a progressively richer, healthier, and more educated world, Russia's human resource constraints may mean that the country should expect a smaller share of the future global economic pie.)

Russia's demographic crisis also has implications for its military capabilities and, by extension, for international security. In 2007, former Russian Prime Minister Sergei Stepashin warned that the "reduction in the size of the population and the reduction of population density . . . will create the danger of weakening of Russia's political, economic, and military influence in the world." As he recognized, Russia's demographic crisis places inexorable limits on the country's defense potential, especially in terms of military manpower. Maintaining the country's current force structure—a military of more than a million soldiers, mainly comprising conscripts obliged to serve one-year terms of service—will not be feasible in the years immediately ahead. Despite plans to

transform Russia's armed forces into an all-volunteer service, the Russian military continues to be manned mainly by 18-year-old men. In 1990, slightly more than one million boys were born in Russia; by 1999, however, this number had dropped by 39 percent, to 626,000. Roughly speaking, this means that Russia's pool of prospective recruits is set to fall by almost two-fifths between 2008 and 2017. If Moscow is to prevent this dramatic drop-off in military manpower, it has only two choices: induct fewer qualified conscripts or extend the term of service under the draft beyond the current 12 months. The former is unpalatable because of the need for healthy and educated troops for modern militaries; the latter is politically impossible because of the immense unpopularity of the draft and the penurious wages paid to Russian soldiers.

Russia's brief war with Georgia in August 2008 was taken by many, including some in the Kremlin, as a sign that Russia was once again militarily resurgent after a decade of post-Soviet weakness. But the military contest with Georgia, a tiny neighbor with barely 20,000 soldiers, hardly qualified as a test of great-power capabilities, much less a test of Russia's global reach. Beyond the question of military manpower, Russia's defense potential today is compromised by the country's crisis in higher education and technical training. The same poor performance in knowledge creation reflected in the number of Russia's international patent awards can also be seen in the defense sector's research and development efforts. Russia's armaments industries have not been knowledge-driven innovators; instead, the defense sector appears largely to be living off the intellectual capital of the Soviet era. Unlike Beijing, which is committed to military modernization in the coming decades, Moscow is in effect preparing to fight this century's wars with last century's technology. In fact, as the Russia analysts Anders Aslund and Andrew Kuchins noted in 2009, as China's military capabilities have improved, Beijing has "reduced its imports of Russian military technology and even exports its own versions to traditional Russian clients such as Angola, Ethiopia and Syria." Russia's dwindling conventional military is on track to become the Polish cavalry of coming generations.

Throughout the Putin and Medvedev eras, the potential security risks to Russia from the ongoing demographic crisis have weighed heavily on the minds of the country's leaders. In his first State of the Nation address, in July 2000, Putin declared that "year by year, we, the citizens of Russia, are getting fewer and fewer. . . . We face the threat of becoming a senile nation." In his 2006 address, he identified demographics as "the most acute problem facing our country today." In Medvedev's May 2009 National Security Strategy, the country's demographic situation was noted as one of the "new security challenges" that Russia must confront in the years ahead. In other words, the potential ramifications of Russia's population trends are not entirely lost on the Kremlin—and they are hardly just a domestic concern. But how will Russia's bunkered and undemocratic leaders cope with the demographic pressures and unfavorable human resource trends that are undermining their goals? For the international community, this may be the single most disturbing aspect of Russia's peacetime population crisis: it is possible that Russia's demographic decline could prompt Moscow to become a more unpredictable, even menacing, actor on the world stage.

Most immediately and dramatically, the decline could lead Russia's military leaders, aware of their deficiencies in both manpower and advanced technology, to lower the threshold at which they might consider using nuclear weapons in moments of crisis. Indeed, such thinking was first outlined in Putin's 2000 National Security Concept and was reaffirmed in Medvedev's 2009 National Security Strategy. The official Russian thinking is that nuclear weapons are Russia's trump card: the more threatening the international environment, the more readily Moscow will resort to nuclear diplomacy.

For the moment, the Kremlin evidently still believes that its ambitious long-term socioeconomic plans will not only remedy the country's demographic woes but also propel Russia into the select ranks of the world's economic superpowers. But if Russia's demographic decline and relative economic decline continue over the next few decades, as they most likely will, Moscow's leaders will be unable to sustain that illusion.

Indeed, once the Kremlin finally confronts the true depths of the country's ugly demographic truths, Russia's political leaders could very well become more alarmist, mercurial, and confrontational in their international posture. And in the process, Moscow might become

more prone to miscalculation when it comes to relations with both allies and rivals. Meanwhile, Russia is surrounded by countries whose stability and comity in the decades ahead are anything but given: for example, Afghanistan, Iran, North Korea, Pakistan, and the Central Asian republics. If Russia's periphery becomes more unstable and threatening at the same time that Russia's rulers realize their relative power is waning, the Kremlin's behavior may well become less confident—and more risky.

Russia's monumental demographic and human resource crisis cannot be remedied without a commensurately monumental nation-wide effort by the Russians themselves. Such an effort will require a historic change in Russian mentality, both in the halls of power and among the general population. On the bright side, with hundreds of billions of dollars of foreign exchange in its vaults, Russia probably has the means to finance the education and the public health campaigns needed for such a transformation.

Foreign governments and other outside actors can also play a role. To start, the international community should promote technical exchanges and training, joint projects on developing best practices in health and education, and civil-society dialogues to build a domestic Russian constituency for stanching the ongoing hemorrhage of Russian life and talent. And when necessary, foreign policymakers, businesspeople, and officials from nongovernmental organizations should be ready to publicly shame the Russian government for its patent neglect of its people's well-being. After all, a healthy, robust Russia is not just in the interest of the Russian people; it is in the interest of the rest of the world, too.