REPORT OVERVIEW

This report is about the geopolitical implications of "global aging"—the dramatic transformation in population age structures and growth rates being brought about by falling fertility and rising longevity worldwide. Its viewpoint is that of the United States in particular and of today's developed countries in general. Its timeframe is roughly the next half-century, from today through 2050.

The report explains how population aging and population decline in the developed world will constrain the ability of the United States and its traditional allies to maintain national and global security. It not only assesses the direct impact of demographic trends on population numbers, economic size, and defense capabilities, but also considers how these trends may indirectly affect capabilities by altering economic performance, social temperament, and national goals. Although the focus is on the developed countries, the report also looks closely at how the striking demographic changes now under way in the developing world will shape the future global security environment—and pose new threats and opportunities for today's graying great powers.

This overview summarizes the report's main findings under two headings: findings about the demographic transformation and findings about its geopolitical implications. It also lays out the organization of the report and summarizes the ground covered in the different chapters.

Major Findings: The Demographic Transformation

- *The world is entering a demographic transformation of unprecedented dimensions.* Global aging is not a transitory wave like the baby boom that many affluent countries experienced in the 1950s. It is, instead, a fundamental demographic shift with no parallel in the history of humanity. The transformation is arriving first in the developed world, but will eventually overtake most of the developing world as well.

- *The coming transformation is both certain and lasting. There is almost no chance that it will not happen—or that it will be reversed in our lifetime.* Global aging is about as close as social science ever comes to a certain

forecast. Every demographer agrees that it is happening and that, absent a global catastrophe, it will continue to gather momentum.

- *The regions of the world will become more unalike before they become more alike.* Most of today's youngest countries are projected to experience the least aging. Most of today's oldest countries are projected to experience the most aging. As a result, the world will see an increasing divergence of demographic outcomes over the foreseeable future.

- *In the developed world, the transformation will have sweeping economic, social, and political consequences that could undermine the ability of the United States and its traditional allies to maintain security.* The growth rates of the service-age population, of the working-age population, and (therefore) of the GDP in the typical developed country will all fall far beneath their historical trend. As populations age and economic growth slows, innovation and entrepreneurship may decline, rates of savings and investment may fall, public-sector deficits may rise, and current account balances may turn negative. Meanwhile, older societies will become more conservative in outlook and possibly more risk-averse in electoral and leadership behavior.

- *In the developing world, the transformation will give rise to dangerous new security threats.* Some political scientists and security experts believe that global aging is pushing the developing world toward greater peace, prosperity, and ultimately democracy. In fact, the overlay of rapid demographic change and rapid development is creating potentially destabilizing economic, social, and cultural stresses in much of the developing world. The threats to global security are growing, not receding.

Major Findings: The Geopolitical Implications

- *The population and GDP of the developed world will shrink steadily as a share of the world totals. In tandem, the global influence of the developed world will likely decline.* Driving this decline will be not just the slower growth of the developed world, but also the surging expansion of such large, newly market-oriented economies as China, India, and Brazil.

- *The population and GDP of the United States, due to its relatively high fertility and immigration rates, will expand steadily as a share of the developed-world totals. In tandem, the influence of the United States within the developed world will likely rise.* Many of today's multilateral theorists look forward to a global order in which the U.S. influence diminishes. In fact, any reasonable

demographic projection points to a growing U.S. dominance among the developed nations that preside over this global order.

- *Most nations in sub-Saharan Africa and some nations in the Muslim world—including Afghanistan, Iraq, the Palestinian Territories, Somalia, Sudan, and Yemen—will possess large ongoing "youth bulges" that could render them chronically unstable until at least the 2030s.* In recent years, many of these nations have amply demonstrated the correlation between extreme youth and violence. If the correlation endures, chronic unrest could persist in much of sub-Saharan Africa and parts of the Muslim world for decades.

- *Many nations in North Africa, the Middle East, South and East Asia, and the former Soviet bloc—including China, Iran, Pakistan, and Russia—are now experiencing rapid or extreme demographic change that could either push them toward civil collapse or (in reaction) "neo-authoritarianism."* All of these nations are rapidly modernizing—and all are encountering mounting stress from some combination of globalization, urbanization, rising inequality, family breakdown, environmental degradation, ethnic conflict, and religious radicalism. China faces the extra challenge of handling an onrushing age wave that will arrive when it will just be becoming a middle-income country, while Russia must cope with a rate of population decline that has no historical precedent in the absence of pandemic. Any of these nations could, at some point, suffer upheaval and collapse. In response to the threat of disorder, many will be tempted to opt for neo-authoritarian regimes (following the current lead of China or Russia).

- *The threat of ethnic and religious conflict will continue to be a growing security challenge in both the developing and developed worlds.* The next half-century is likely to be characterized by intense "demographic competition" between slower- and faster-growing ethnic and religious groups.

- *Throughout the world, the 2020s will likely emerge as a decade of maximum geopolitical danger.* In the developed world, the 2020s is the decade in which global aging will hit the hardest. Meanwhile, in the developing world, breaking population trends—from youth "echo booms" in the Muslim world to "premature aging" in China and population implosion in Russia—will threaten to create serious new security challenges.

- *The aging developed countries will face chronic shortages in young-adult manpower—posing challenges both for their economies and their security forces.* Many developed countries will be tempted to abandon military forces altogether, which will render them permanent free riders on their allies.

Countries retaining major forces, the United States foremost among them, will need to carefully weigh the potential benefits of labor-intensive security missions against the high costs.

- *An aging developed world may struggle to remain culturally attractive and politically relevant to younger societies.* Today's liberal and democratic global order owes its durability not only to the developed countries' capacity to defend it against aggressors, but more importantly to the positive global reputation of the developed countries themselves. This may change if, as these countries age, they are no longer regarded as progressive advocates for the future of all peoples, but rather as mere elder defenders of their own privileged hegemony.

Organization of the Report

Chapter One, Population and Power surveys the recent explosion of worldwide interest in the influence of demography on geopolitics. It also takes a step back and looks briefly at what policymakers have concluded about this influence over the centuries—as well as what history itself suggests about the role of population. We explain why much of the "classical" thinking about political demography seems newly relevant to the prospects of the developed world in the twenty-first century. We discuss the economic, social, and political wildcards that may affect the assumptions underlying our effort to project trends over nearly a half-century. Finally, we explain that our analysis does not point in any obvious ideological direction, but rather offers important lessons for foreign-policy theorists of both the realist and idealist schools.

Chapter Two, The Developed World: Assessing the Projections analyzes the magnitude and timing of the aging trend in the developed world. We compare and contrast the demographic outlook in the United States and the other developed countries, discuss the underlying demographic drivers (fertility, mortality, and immigration), and examine the sensitivity of the projections to changes in the assumptions. We also project the impact of rising old-age dependency burdens on government budgets and of more slowly growing or declining working-age populations on employment and GDP growth.

Chapter Three, The Developed World: Assessing the Consequences examines the ways in which demographic aging will, directly or indirectly, affect either the ability or the willingness of the developed countries to maintain national and global security. We organize these demography-security linkages under three

headings: (1) *Changes in Demographic Size,* or how smaller population size and (therefore) economic size directly constrains the national ability to project power; (2) *Changes in Economic Performance,* or how demographic aging indirectly affects the structure and productivity of the economy; and (3) *Changes in Social Mood,* or how demographic trends such as higher average age, smaller families, and growing ethnic and religious diversity are likely to affect the public's outlook and priorities.

Chapter Four, The Developing World's Demographic Future: Cause for Hope or Concern? looks at the diverse consequences of demographic change in the rest of the world. While a number of political scientists and security experts have offered a very optimistic interpretation of the consequences, we raise a series of cautions about what we dub the "demographic peace" thesis. We evaluate the threat of youth-bulge driven unrest in the youngest countries; the possibility of collapse or neo-authoritarian reaction in middle-income countries that are in the midst of the demographic transformation; and the special challenges facing countries experiencing very rapid aging (like China) or extreme population decline (like Russia). We also discuss the likelihood and importance of worsening ethnic and religious conflict in the developing countries.

Chapter Five, A Demographic Map of Our Geopolitical Future puts the analysis together into a single global perspective on the next half-century that includes both demographic and economic projections. We list our critical findings and discuss their geopolitical implications. We also present a framework for policy action. The framework includes strategic responses on four broad fronts: (1) *Demographic Policy*, or responses that slow demographic aging itself, including pronatalism and stepped-up (or better-managed) immigration; (2) *Economic Policy*, or responses that help the economy function better in the face of demographic aging, including initiatives that would lower old-age transfer burdens, raise national savings, and make labor markets more flexible; (3) *Diplomacy and Strategic Alliances*, or responses that adjust foreign-policy orientation to meet the new geopolitical threats and opportunities arising from global demographic change; and (4) *Defense Posture and Military Strategy*, or responses that adapt force structures and mission capabilities to the new demographic realities.

The magnitude and timing of the coming demographic transformation are virtually locked in—and the serious consequences can be predicted with reasonable confidence. It is imperative that policymakers begin to formulate and implement critical strategic responses now, rather than wait for the predictable surprise to happen.

Chapter One

POPULATION AND POWER

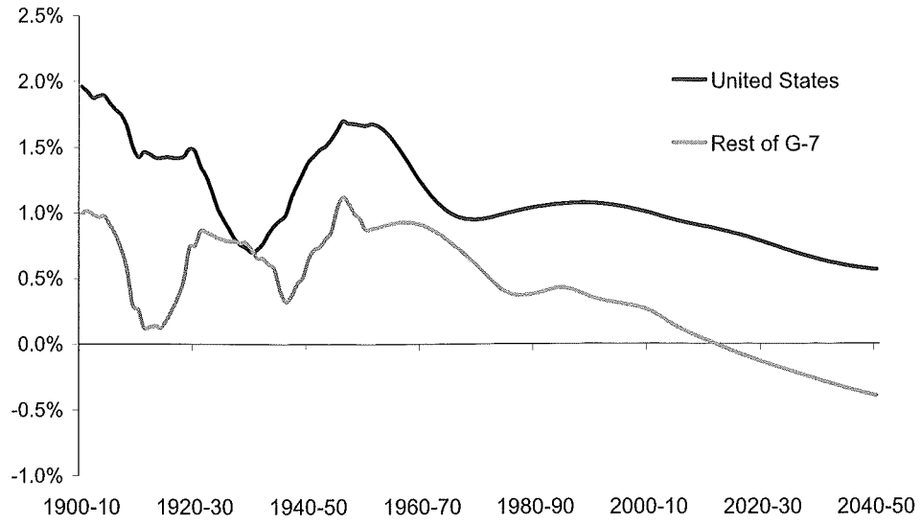
Today's developed countries stand on the threshold of a stunning demographic transformation. Throughout most of history until well into the Industrial Revolution, the elderly (aged 65 and over) comprised a tiny fraction of the population—never more than 3 or 4 percent in any country. In the developed word today, they comprise 16 percent of the population. By 2030, the share is projected to rise to 23 percent and by 2050 to 26 percent.[1] In some fast-aging countries of Western Europe, it will reach 35 percent by 2050—and in Japan it will approach 40 percent. By mid-century, at least half of Americans will be over age 40 and at least half of Europeans will be over age 50.

Most developed countries will not only have aging populations, but also stagnant or declining ones. By around 2015, working-age populations (aged 20 to 64) in almost every developed country will cease growing and in many cases begin to contract, the only major exception being the United States. By 2050, there will be 27 percent fewer working-age Germans than today and 39 percent fewer working-age Japanese. By the mid-2020s, total populations will also peak and plateau or begin to decline in almost every developed country—again, the only major exception being the United States. Japan and some of the fast-aging European countries are on track to lose nearly one-half of their total current populations by the end of the century. (See figures 1-1 and 1-2, which compare the long-term trends in population growth and population aging in the United States and the other Group of Seven countries, or G-7.)

Two forces are driving this demographic transformation. The first force is a long-term trend toward lower fertility. People are having fewer babies, and this both shrinks the relative number of younger people in the population and

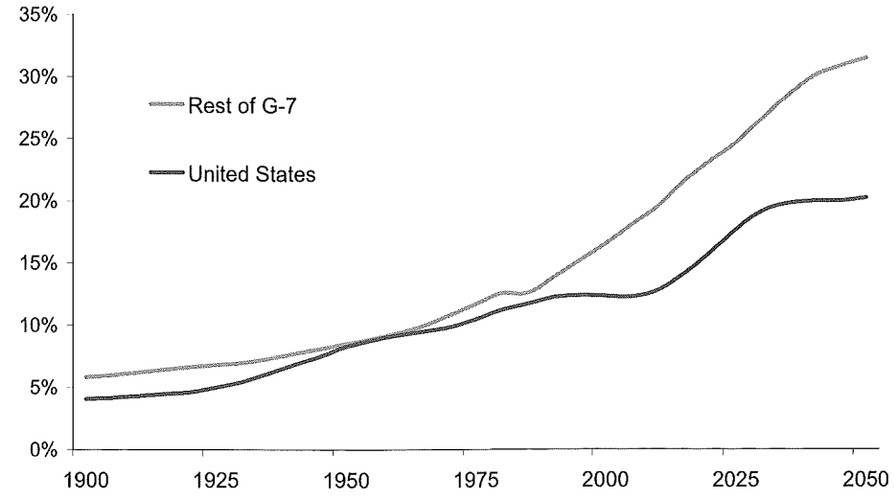
[1] Unless otherwise noted, the population projections cited in this report come from the UN Population Division's *World Population Prospects: The 2006 Revision* (New York: UN Population Division, 2007). For the developed countries, we use the UN's constant-fertility projection. For the developing countries, we use either the UN's high-variant or constant-fertility projection, depending on each country's current location in the demographic transition. See chapter 2 for a discussion of the developed-country projections and chapter 4 for a discussion of the developing-country projections. See also appendix 1 for our classification of countries as developed or developing, which differs from the UN's, as well as our definitions of the various regions referred to in the report.

Figure 1-1: Population of the United States and the Rest of the G-7 Countries, Average Annual Growth Rate (10-Year Moving Average), 1900–2050



Source: Angus Maddison, World Population, GDP and Per Capita GDP, 1–2003 A.D., August 2007, http://www.ggdc.net/maddison/; and *World Population Prospects* (UN, 2007). See appendix 1 for scenario.

Figure 1-2: Elderly (Aged 65 & Over), as a Percent of the U.S. and Rest of G-7 Population, 1900–2050



Source: Angus Maddison, World Population, GDP and Per Capita GDP; *Demographic Trends in the 20th Century* (Washington, DC: U.S. Census Bureau, November 2002); *Population Statistics of Japan 2006* (Tokyo: National Institute of Population and Social Security Research, March 2006); and *World Population Prospects* (UN, 2007). See appendix 1 for scenario.

suppresses population growth. A generation ago, every developed country was at or above the 2.1 fertility "replacement rate" needed to maintain a stable population from one generation to the next. Today, every developed country is at or below it—and many are far below it. In Japan, Germany, and Italy, the fertility rate is just 1.3. At the other extreme, the United States has been at or close to the replacement rate for the last two decades, and France recently announced that its fertility rate is now close to replacement as well.

The second force is a long-term trend toward rising life expectancy. People are living longer, and this enlarges the relative number of older people in the population. The rise in life expectancy over the postwar era has been stunning. Fifty years ago, life expectancy in the developed countries was in the mid- to late 60s. Today, it is in the late 70s—and in several countries, including Canada, Italy, and Japan, it has passed age 80.

The transformation is not just affecting the world's affluent nations. Most, but not all, of the developing world is also progressing through what is known as the "demographic transition"—the shift from the high fertility and high mortality that characterize traditional societies to the low fertility and low mortality that characterize modern ones. Although populations in the developing world remain considerably younger and faster growing than populations in the developed world, most are experiencing the same trend toward an older median age and a decelerating growth rate. The demographic outlook in the developing world, however, is shaping up to be one of extraordinary diversity. Many of the poorest and least stable countries (especially in sub-Saharan Africa) are hardly touched by the transformation, while many of the most rapidly modernizing countries (especially in East Asia) are undergoing the entire population shift from young and growing to old and stagnant or declining at a breathtaking pace—far more rapidly than any of today's developed countries did.

This report investigates how "global aging"—as the demographic transformation is often called—will reshape the geopolitical landscape through the first half of the twenty-first century. From the perspective of today's developed nations, the report addresses questions like the following:

- How will demographic change reshape the relative influence and power exercised by the world's nations and alliances?
- How will it affect the performance of national economies, the mood of national electorates, and the effectiveness of national defense strategies?

- Will rising retirement and health-care costs crowd out spending on national defense and international affairs?
- Will today's developed countries come to depend on the surplus savings of rising developing nations to keep them afloat financially—and if so, how can we expect these new suppliers of capital to use their newly acquired leverage?
- Will armed forces experience chronic manpower shortages as the number of youth declines and tight civilian labor markets make military careers less attractive?
- Will the resources available to pursue geopolitical goals be further constrained by the changing temperament of risk-averse older voters?
- Will demographically declining societies be less willing to risk scarce young people in war, and will this accelerate the substitution of military technology for manpower?

Non-demographers may suppose that population projections so far into the future are highly speculative. But in fact, the aging of the population in today's developed countries is perhaps the most certain prediction that social science can make about the future. Falling fertility and rising longevity are the result of many well-established trends (from rising living standards to the growing employment and educational attainment of women) that few experts believe will be reversed in the near future. And even if the experts are proved wrong, "demographic momentum" still ensures that the developed world will age dramatically in the decades to come. Even a new baby boom would have no appreciable impact on the size of the working-age population or the ratio of workers to retirees in the developed countries over the next 20 years and only a modest impact over the next 30 years.

The coming demographic transformation is thus virtually locked in. It is imperative that policymakers begin to think about its geopolitical implications now, rather than wait for the predictable surprise to happen.

The time horizon for this report extends through the year 2050. In most developed countries, the rise in the elderly share of the population will begin to accelerate in the 2010s, as large postwar baby boom generations cross the traditional threshold of old age. And, in most of them, the period of rapid aging will continue into the 2030s and (in some cases) the 2040s. To cut off our time horizon earlier would be to terminate our projection before the age transition is complete. This would understate both the magnitude of the challenge and the leadership response that it requires. To look beyond 2050, on the other hand, might needlessly stretch the time horizon of our projection beyond the limits of prudence.

The report's policy focus is on the United States in particular and the developed world in general. The purpose is to shed light on how the demographic transformation will affect the long-term security interests of the developed nations and how they can best prepare and respond. Our working assumption is that these nations share a cluster of basic values—such as respect for human rights, property rights, due process, and national sovereignty—that will continue to endow them with powerful common interests over at least the next half-century. The United States may also learn from the experience of other developed countries, most of which are aging more rapidly.

Although the developed world has the spotlight, the rest of the world will not be neglected. The report pays considerable attention to the developing countries. These are the players who will shape the threats and opportunities with which our protagonists must contend. From "youth bulges" in the Muslim world to "premature aging" in China and population implosion in Russia, striking demographic trends the world over will reshape the future environment for U.S. policy.

Traditionally, and even as recently as the Cold War, the link between demography and national security was viewed as the brute means by which a country's population can help achieve the goals of a nation's leadership—what RAND scholar Brian Nichiporuk calls "the bucket of capabilities" perspective.[2] In the extreme, this can reduce the significance of population to a few basic statistics, such as GDP or the number of service-age adults. Although the simple capabilities perspective is important, this report will also take advantage of new scholarship in the social sciences to look more broadly at how demographic change can indirectly affect capabilities—or even alter national goals themselves. Through its impact on family structure, risk tolerance, voter behavior, job mobility, and religious extremism, demography can in fact transform the very temperament of a society. In short, we will have as much to say about national aspirations as about national power.

The demographer Nicholas Eberstadt has warned that demographic change may be "even more menacing to the security prospects of the Western alliance than was the Cold War for the past generation."[3] Although it would be fair to point out that such change usually poses opportunities as well as

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[2] Brian Nichiporuk, *The Security Dynamics of Demographic Factors* (Santa Monica, CA: RAND Corporation, 2000), 5.

[3] Nicholas Eberstadt, "Population Change and National Security," *Foreign Affairs* 70, no. 3 (Summer 1991), 129.

dangers, his basic point is incontestable: Planning national strategy for the next several decades with no regard for population projections is like setting sail without a map or a compass. It is likely to be an ill-fated voyage. In this sense, demography is the geopolitical cartography of the twenty-first century.

In the rest of this chapter, we begin by surveying the recent explosion of worldwide interest in the impact of demography on geopolitics. We note that, despite the new interest, there has been no single comprehensive account of how this dynamic is likely to shape our long-term future. We wrote this report expressly to help fill this void in the national security literature. Next, we step back and briefly survey what policymakers have been thinking and writing about population and power since the dawn of civilization. We also offer some tentative lessons that history itself provides about the connection between population and power. Finally, we identify and explain the critical assumptions that will guide our analysis in the rest of the report. We conclude with a discussion of how our findings are or are not aligned with the two main schools of thinking about geopolitical affairs—the realist and the idealist.

POPULATION AND POWER: THE NEW GLOBAL INTEREST

Both academics and the general public have recently begun to pay a lot more attention to the consequences of demographic change. The worldwide interest in this topic is indeed greater today than at any time since the Great Depression and World War II—which means that this report may be appearing at an opportune moment.

Ten years ago, global aging was hardly on the radar screen of most U.S. policymakers. Today, it dominates almost any discussion of America's long-term fiscal, economic, or foreign-policy direction. "Until about the year 2000," writes historian Walter Laqueur, "most thinking about the future of Europe, political, social, economic, or cultural, ignored demography."[4] Now that has changed as well. Global demographic trends are monitored and studied at the highest leadership levels—at G-7 economic conferences, at NATO summits, and in the U.S. Department of Defense strategy documents. Leaders and legislators debate the domestic impact of demographic aging on everything from unemployment and infrastructure to pensions and health-care spending. Global policymakers are learning to use a whole new vocabulary:

[4] Walter Laqueur, *The Last Days of Europe: Epitaph for an Old Continent* (New York: Thomas Dunne Books, 2007), 33.

birth wars, pronatalism, demographic engineering, ethnic competition, diaspora networks, youth bulges, youth deficits, population implosion, aging recessions, and budgetary graying.

Meanwhile, as ordinary citizens learn more about demographic aging, they too are taking greater interest—often by expressing concern over the future of their country, their people, their language, their ethnicity, or simply their way of life. Questions that were never asked when the prevailing worry was overpopulation—will "we" prevail in the long run? or even survive?—acquire new saliency. As Michael Teitelbaum and Jay Winter put it in *The Fear of Population Decline*, their prescient 1985 book examining the first signs of disquiet over falling fertility in Europe, such worries have "almost always conjured up a multitude of alarming images. Many of them have revealed fears not only about numbers but also about the quality, vitality, or optimistic outlook of a nation's inhabitants."[5]

When expert opinion pushes in the same direction as popular worries, the result is often political action—for example, to enact pronatal incentives. Over the last decade, many governments have enacted or have begun to consider social policy reforms that would give women an additional inducement to have more children, including Australia, France, Germany, Italy, Japan, Poland, Russia, South Korea, Spain, and the UK. Vladimir Špidla, the European Union's commissioner for employment and social affairs, has recently asked that all new EU policies be evaluated for their effect on birthrates and family formation.[6] Whether any of these measures are likely to result in significantly higher fertility is (as we will see) debatable.

Throughout the developed world, where the concern over demographic change is strongest, public opinion has been galvanized by memorable media episodes in each country. Early in 2004, the cover of *Der Spiegel* showed a baby hoisting 16 old Germans on a barbell with the caption: "The Last German—On the Way to an Old People's Republic."[7] The Japanese government, while passing one of its many fertility initiatives (including a "Fundamental Law against a Decline in the Fertility Rate"), stirred public controversy by the release of a projection showing the date at which Japan's population would eventually decline to zero.[8] In France, Prime Minister

[5] Michael S. Teitelbaum and Jay M. Winter, *The Fear of Population Decline* (London: Academic Press, 1985), 2.

[6] Elisabeth Rosenthal, "European Union's Plunging Birthrates Spread Eastward," *The New York Times*, September 4, 2006.

[7] Ben J. Wattenberg, *Fewer: How the New Demography of Depopulation Will Shape Our Future* (Chicago: Ivan R. Dee, 2004), 103.

[8] *Population Statistics of Japan 2003* (Tokyo: National Institute of Population and Social Security Research, March 2003).

Jean-Pierre Raffarin faced down unions dominated by older workers by announcing that reform of the nation's unsustainable pension plan was necessary for "the survival of the republic."[9] In Italy, Pope John Paul II characterized "the crisis of births" as a "serious threat" in a nation described by *La Stampa* as "the oldest country in the world, a country of great-grandparents."[10] Meanwhile, Venice recently announced that it is losing younger residents so fast (its population has already fallen by half over the last 40 years) that the city will soon need to repackage itself as an empty "Disneyland" for foreign visitors.[11]

In nearly all of the developed countries, local authorities in rural regions worry about the decline in the number of young native residents, while in urban areas they worry about the growth in the number of young immigrant residents. TV and magazine features about rural towns often focus on the closure of schools and infrastructure, along with the emigration of youth. Features about urban centers often focus on the difficulties of assimilating foreigners.

When news about aging and fertility decline is covered in the media, the tone is overwhelmingly one of worry—with negative interpretations outnumbering positive interpretations (according to one count) by 13 to 1.[12] Highest on the list of negative consequences are damage to the economy and loss of national power and influence. The environmental impact, though usually billed as positive, is mentioned much less often. Not surprisingly, the journalistic alarm appears least frequently in developed countries with relatively high fertility rates (for example, the United States) and most frequently in countries with relatively low fertility rates (for example, Japan or Italy).

Over the last few years, many writers and pop-culture creators in the developed world have taken the public's demographic worries and have leveraged them into a message of pessimistic declinism. "Why is Europe committing demographic suicide, systematically depopulating itself?" asks George Weigel in *The Cube and the Cathedral.*[13] "Japan offers the chance to observe the

[9] Mark Lander, "West Europe Is Hard Hit by Strikes over Pensions," *The New York Times*, June 4, 2003.

[10] Elizabeth L. Krause, "Dangerous Demographies: The Scientific Manufacture of Fear," Briefing no. 36 (Dorset: The Corner House, July 2006), 1.

[11] John Hooper, "Population Decline Set to Turn Venice into Italy's Disneyland," *The Guardian,* August 26, 2006.

[12] Laura Stark and Hans-Peter Kohler, "The Debate over Low Fertility in the Popular Press: A Cross-National Comparison, 1998–1999," *Population Research and Policy Review* 21, no. 6 (December 2002).

[13] George Weigel, *The Cube and the Cathedral: Europe, America, and Politics without God* (New York: Basic Books, 2005), 21.

demographic death spiral in its purest," notes Mark Steyn in *America Alone.*[14] In some cases, the book titles say it all: *France Is Falling* (Nicolas Baverez), *Can Germany Be Saved?* (Hans-Werner Sinn), and *The Last Days of Europe* (Walter Laqueur).[15] Notable dystopian visions of an aging and childless social future include the British film hit, *Children of Men;* the documentary, *Demographic Winter: The Decline of the Human Family*; and the best-selling book, *Minimum,* by novelist Frank Schirrmacher.[16]

In the developing world, demographic projections are triggering a greater variety of responses. In regions hit hard by falling fertility and imminent population decline, some leaders are expressing desperate urgency about turning these trends around. President Vladimir Putin, citing his nation's future economic and security needs, has flatly declared Russia's birth dearth to be "the most acute problem facing our country today."[17] To raise the birthrate, the state is trying to motivate parents through monetary incentives, patriotic clubs, and emotional propaganda. Many nations in Eastern Europe, as well as East Asian nations like South Korea and Singapore (whose fertility rates have recently plunged to among the world's lowest), likewise feel a sense of demographic vulnerability and have enacted or are considering policy changes. In Singapore, the family planning slogan used to be: "Two Is Enough." Now it is: "Three Children or More If You Can Afford It."[18]

In higher-fertility regions, national responses can be very different. Many governments are still working to overcome traditional pronatal customs in order to reduce population growth and thereby alleviate poverty and spur development. Others take a relatively neutral posture. And in several notable recent instances, leaders have championed faster demographic growth. Incoming President Berdymukhamedov of Turkmenistan is this year instituting lavish new benefits for large families.[19] President Mahmoud Ahmadinejad of Iran would like to reverse his nation's recent fertility decline and claims that Iran has the "capacity" to handle 50 million more citizens.[20] President Recep

[14] Mark Steyn, *America Alone: The End of the World As We Know It* (Washington, DC: Regnery Publishing, 2006), 24.

[15] Nicolas Baverez, *La France qui tombe* (Paris: Perrin, 2003); Hans-Werner Sinn, *Ist Deutschland noch zu retten?* (Berlin: Econ, 2003); and Laqueur, *Last Days of Europe.*

[16] *Children of Men,* DVD, directed by Alfonso Cuarón (2006); *Demographic Winter: The Decline of the Human Family,* DVD, directed by Rick Stout (2008); and Frank Schirrmacher, *Minimum: Vom Vergehen und Neuentstehen unserer Gemeinschaft* (Munich: Blessing, 2006).

[17] "Vladimir Putin on Raising Russia's Birth Rate," *Population and Development Review* 32, no. 2 (June 2006).

[18] Slogans quoted in Helen Ginn Daugherty and Kenneth C. W. Kammeyer, *An Introduction to Population,* 2nd ed. (New York: Guilford Press, 1995), 255.

[19] "Turkmenistan's Plan for Baby Boom," BBC News, March 5, 2008.

[20] "Iranians Urged to Have More Kids," Reuters, October 22, 2006.

Tayyip Erdoğan of Turkey has often advocated "more babies" in the name of Islam and decried contraception as "straight out treason to the state"—provocative remarks given Turkey's pending EU membership (and the expectation that it will in any case surpass Germany in population by 2015).[21]

Meanwhile, many radical Islamist leaders advocate higher fertility as a means by which Muslim-majority nations can, over time, win greater control of global affairs. They variously describe most forms of family planning as pro-Western, contrary to Shari'a, and a hindrance to jihad. Their rhetoric is strident. "We're the ones who will change you," declared Norwegian imam Mullah Krekar to the Oslo media in 2006. "Just look at the development within Europe, where the number of Muslims is expanding like mosquitoes.... Our way of thinking...will prove more powerful than yours." [22] Likewise, Yusuf al-Qaradawi in London in 2004: "Israelis might have nuclear bombs but we have the children bomb and these human bombs must continue until liberation."[23] Although national Islamist parties holding this aggressively pronatalist posture have yet to win political power in a Muslim-majority nation (and were decisively defeated in the Pakistani election of 2008), their worldview has a significant constituency.

For most people living in the developing world, however, demographic fears do not play out at the global or national level with anywhere near the intensity that they do at the subnational level—that is, the level of tribal, racial, and ethnic competition. Due to the strength of many historical animosities, the weakness of many national governments, and the absence of superpower intervention (after the close of the Cold War), what economist Milica Bookman calls an "inter-ethnic war of numbers" is now unfolding inside a remarkable number—probably a majority—of developing countries in the Eastern Hemisphere.[24] We mention here merely the conflicts that have recently been in the headlines: in Lebanon (between three religious groups), in India (two religious groups), in Pakistan (two religious groups), in the former Yugoslavia (six ethnic groups and three religious groups), in Iraq (two religious groups), in Malaysia (two ethnic groups), and in the states of sub-Saharan Africa (where the ethnic, religious, and language divisions are beyond counting). Rising disparities between the growth rates of different groups, with some groups shrinking while others are still doubling

[21] "Contraception Is Treason, Turkish Islamist Leader Says," Agence France Presse, February 16, 2002.

[22] "Krekar Claims Islam Will Win," *Aftenposten*, March 13, 2006.

[23] Nick Fielding and Dipesh Gadher, "London-based Radical Salutes Bombs 'Victory,'" *The Times* (of London), July 17, 2005.

[24] Milica Zarkovic Bookman, *The Demographic Struggle for Power: The Political Economy of Demographic Engineering in the Modern World* (London: Frank Cass, 1997), 1.

every two decades, further intensify the perception of competition. The number of non-exiled refugees (or "internally displaced persons") driven from their homes by such struggles reached an unprecedented 42 million worldwide in 2002.[25]

Whether these conflicts are waged with armed militias or at the ballot box, they are often regarded by participants as explicit struggles for domination in which numbers play a critical role and population growth wins the long-term prize. They too constitute a demographic dynamic (which we discuss in chapter 4) that will help shape the geopolitics of the next half-century, even if they do mostly unfold beneath the level of international relations.

Somewhat surprisingly, given the recent explosion of attention to population and power in so many countries, there has been no serious and comprehensive treatment of how demographic trends will shape the world's long-term geopolitical future. This report, accordingly, fills a void in the national security literature.

To be sure, there has been much new writing about most other aspects of global aging. The issue that has received the most attention, both in the popular press and academic journals, has been the impact of demographic change on government budgets and economic performance—and, in particular, on the sustainability of public retirement systems and on rates of savings and investment worldwide. This has become the subject of many long research institute monographs (for example, from the Brookings Institution, the World Bank, and the IMF), several popular books (by Peter G. Peterson and by Larry Kotlikoff and Scott Burns, among others), hundreds of academic articles, and a flood of journalism.[26] Other topics receiving broad coverage include the connections between global aging and size of government, workforce productivity, and international migration.

There is also a growing scholarly literature on specific demographic topics with a direct connection to geopolitics. The empirical and analytical research on youth bulges and their correlation with outbreaks of civil disorder

[25] *Global Humanitarian Emergencies: Trends and Projections, 2001–2002* (Washington, DC: National Intelligence Council, September 2001).

[26] Among the more notable books are the World Bank's *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth* (New York: Oxford University Press, 1994); Barry Bosworth and Gary Burtless, *Aging Societies: The Global Dimension* (Washington, DC: Brookings Institution Press, 1998); Peter G. Peterson, *Gray Dawn: How the Coming Age Wave Will Transform America—and the World* (New York: Times Books, 1999); Peter S. Heller, *Who Will Pay? Coping with Aging Societies, Climate Change, and Other Long-Term Fiscal Challenges* (Washington, DC: International Monetary Fund, 2003); and Larry J. Kotlikoff and Scott Burns, *The Coming Generational Storm: What You Need to Know about America's Economic Future* (Cambridge, MA: The MIT Press, 2005).

and regional conflict, for example, is impressive. Other topics with potential security implications that are attracting special scholarly interest include changes in family structure in high-income societies, the impact of population-related environmental damage on intrastate conflict, the widening gender imbalance in several East and South Asian societies, and the implications of differential growth rates between ethnic majority and minority populations in both the developing and developed worlds. Casting a wider net, one could include many other topics covered in academic and professional journals having a more indirect connection to geopolitics, such as the impact of global aging on health, human resources, marketing, the media, and urban planning.

This literature, however, is narrowly focused, and the gaps between the topics it covers are wide. To date, U.S. federal agencies and their contractors, including the CIA, the National Intelligence Council (NIC), and the RAND Corporation, have issued the only book-length policy monographs focusing mostly on demography and geopolitics.[27] These are very useful, yet also very introductory. Several eminent scholars, most notably Paul Kennedy and Samuel Huntington, have written geopolitical treatises that touch on demographic trends, but only indirectly.[28] Ben Wattenberg and Phillip Longman have published book-length interpretations of global aging, but these only indirectly touch on geopolitics.[29]

One recent and fascinating book genre—the authors include Patrick Buchanan, Mark Steyn, George Weigel, Herbert Meyer, Walter Laqueur, Nicolas Baverez, and Hans-Werner Sinn—draws a direct connection between demographic aging and civilizational decline.[30] Although this thesis has obvious geopolitical implications, the works themselves are far too polemical and too casually researched to be regarded as more than provocative commentary.

Yet by calling attention to the intensity of the discussion now surrounding demographic change, these works do usefully point toward some obvious

[27] *Long-Term Global Demographic Trends: Reshaping the Geopolitical Landscape* (Washington, DC: U.S. Central Intelligence Agency, July 2001); *Mapping the Global Future* (Washington, DC: National Intelligence Council, December 2004); and Nichiporuk, *Security Dynamics.* See also Brian Nichiporuk, *Alternative Futures and Army Force Planning: Implications for the Future Force Era* (Santa Monica, CA: RAND Corporation, 2005).

[28] Paul M. Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000* (New York: Vintage, 1989); and Samuel P. Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon & Schuster, 1996).

[29] Wattenberg, *Fewer*; and Phillip Longman, *The Empty Cradle: How Falling Birthrates Threaten World Prosperity and What to Do About It* (New York: Basic Books, 2004).

[30] Patrick J. Buchanan, *The Death of the West: How Dying Populations and Immigrant Invasions Imperil Our Country and Civilization* (New York: St. Martin's Press, 2002); Steyn, *America Alone*; Weigel, *Cube and Cathedral*; Herbert E. Meyer, "An Open Letter to Europe," *The American Thinker*, November 11, 2004; Laqueur, *Last Days of Europe*; Baverez, *France qui tombe*; and Sinn, *Ist Deutschland noch zu retten?*

questions: Why is demography suddenly the object of so much attention? Has this happened before? What have eminent statesmen and thinkers said about how demography shapes geopolitics? What lessons arise from the historical track record?

POPULATION AND POWER: LESSONS OF HISTORY

Demographic change shapes political power like water shapes rock. Up close the force looks trivial, but viewed from a distance of decades or centuries it moves mountains. To illustrate how dramatically populations can displace each other over time, the historian Eugene M. Kulischer once reminded his readers that in A.D. 900 Berlin had no Germans, Moscow had no Russians, Budapest had no Hungarians, Madrid was a Moorish settlement, and Constantinople had hardly any Turks. He added that the Normans had not yet settled in Britain, and that before the sixteenth century there were no Europeans living in North or South America, Australia, New Zealand, or South Africa.[31] As Mark Steyn pithily remarks, "Demographics is a game of last man standing."[32]

Before we attempt to analyze how demographic change will shape the geopolitics of the twenty-first century, it seems appropriate to take a look back over previous centuries to see if any broad themes can be distilled from the many twists and turns of historical experience. That population change contributes to the rise and fall of nations and empires is a fact of great antiquity. That policy leaders and their advisers often ponder its contribution and strive to influence it is also a fact of great antiquity. We approach these facts in reverse order. We look first at what societies have thought and said about population and power and then at what (if anything) the past actually teaches us about their connection.

To answer our first question, let's start with the obvious—that, from the beginning of history and almost continuously until the modern era, most societies (or at least their elites) have been seriously concerned about population. With few exceptions, moreover, their main worry has been how to maintain sufficient population growth. They have sought growth at a minimum in order to withstand the ravages of war, disease, starvation, and other unforeseeable catastrophes, and at a maximum to be able to expand by conquering, absorbing, or displacing neighbors.

[31] Eugene M. Kulischer, *Europe on the Move: War and Population Changes, 1917–47* (New York: Columbia University Press, 1948).

[32] Steyn, *America Alone*, 3.

By most accounts, this powerful "populationist" impulse (disposed to preventing deaths, promoting births, and favoring the assimilation of others through immigration or emigration) has its origin in the prehistoric nature of humankind. Anthropologists and sociobiologists have observed that humans are a species that favors its own offspring and organizes into coalitions (initially families, clans, and tribes) to further their survival. These coalitions in turn foster cultural values and social rules that preserve their own group's integrity and encourage their own group's safety, prosperity—and multiplication. Coalitions that succeed in this agenda may survive, though perhaps just barely. Coalitions that do not, perish. The claim that prehistoric societies valued group solidarity and group welfare is hardly controversial. To support the further claim that they vigorously promoted fertility, scholars point to abundant evidence: family-formation strategies that maximized births and equated family size with social status (usually through polygamy), the celebration of fertility and the honoring of mothers, and widespread ancestor worship (which pressures believers to procreate in order that they achieve immortality through the worship of their descendants).[33]

Not surprisingly, most later religions—at least those that endured to play a major role in history—continued to encourage or even mandate large families. This is true of all of the major monotheisms (Judaism, Christianity, Islam, and Zoroastrianism), as well as of Confucianism. In his classic history of population doctrines, Charles Stangeland explains: "Injunctions similar to Jehovah's command, 'Increase and multiply,' are found in the religions of practically every ancient nation. For this almost universal attitude toward population an explanation must be found in the fact that the early nations were in a state of almost continuous hostility; always menaced and menacing."[34]

When the early leaders of political states began to design or enact explicit population policies, they did not need to invent new directives so much as co-opt directives that were already entrenched in the prevailing culture. The early rulers of Sumer and Babylonia gave fertility cults official status and installed them on the ziggurats. The great lawgivers Hammurabi, Lycurgus, and Solon codified family norms in a manner which (in the opinion of some scholars) favored higher birthrates. Ancient writers frequently relate, through anecdote, the brutal pronatalism of ancient leaders. In his account of Pericles' famous oration, Thucydides has him tell Athenian women that the best way they can help in wartime is to bear more children. According to Plutarch, Philip of Macedon passed a law forcing his subjects to marry early to fill the future ranks of his army; his son Alexander the Great likewise ordered thousands of his conquering soldiers to marry Persians. (At nearly the same time, the Confucian forerunner Mo Zi was arguing in China that all men should be compelled to marry at age 20, all women at age 15.) Plutarch also tells the story of another Macedonian, Pyrrhus of Epirus, whose "Pyrrhic victories" on behalf of the Italian Greeks against the Roman republic were to no avail. Due to Rome's prodigious birthrate, its losses could be effortlessly replaced after every battle.

"Presumably," writes demographer Johannes Overbeek of ancient civilizations, "fertility was always or almost always praised and policies were aimed at the maintenance of high birthrates."[35] Paul Demeny agrees: "Measures encouraging marriage and sometimes immigration testify to the prevailing populationist sentiment among rulers throughout history."[36] At no time did ancient writers express this populationism with such vehemence as when their policies were failing and their numbers were falling. Observing the demographic decline of Greece in the third century B.C., Polybius specifically noted the absence "of continuous wars or epidemics" and blamed it instead on "the ostentation, avarice, and laziness" of citizens who were "unwilling to marry or, if they did marry, to bring up the children born to them; the majority were only willing to bring up at most one or two."[37] During the late Roman republic, Cicero and other statesmen inveighed against the low birthrate of the Roman elite. During the empire, Tacitus compared the large families of the Germans with the small families of the Romans, which he considered a sign of his countrymen's loss of civic and personal virtue.

During the Middle Ages, as Christian Europe devolved into feudalism, rulers seldom worried about births except within their own families; attention to demography as a policy issue practically vanished. The most interesting writers on population and power were Muslim and Chinese (for example, Ibn Khaldun and Ma Duanlin) who lived in regions where empires still thrived.

Intellectual currents again shifted back toward Europe with the Renaissance and Reformation—and especially with the rise of the modern Western

[33] For a primer on the sociobiology of the populationist impulse, see Walter Scheidel, "Sex and Empire: A Darwinian Perspective," Princeton/Stanford Working Papers in Classics no. 050603 (Princeton, NJ: Princeton University, May 2006). See also Charles E. Stangeland, *Pre-Malthusian Doctrines of Population: A Study in the History of Economic Theory* (New York: Sentry Press, 1904); and Johannes Overbeek, *History of Population Theories* (Rotterdam: Rotterdam University Press, 1974).

[34] Stangeland, *Pre-Malthusian Doctrines,* 40.

[35] Overbeek, *Population Theories*, 1.

[36] Paul Demeny, "Population Policy: A Concise Summary," Policy Research Division Working Papers no. 173 (New York: Population Council, 2003), 3.

[37] Quoted in Arnold J. Toynbee, *Greek Civilization and Character: The Self-Revelation of Ancient Greek Society* (New York: E. P. Dutton & Co., 1924), 99.

nation-state. As they rediscovered classical texts, humanists like Machiavelli began reviving the image of the powerful state, whose strength rested on both the number and quality of its citizens. As they overhauled religion, reformers like Martin Luther attacked the Catholic Church for encouraging celibacy and monasticism and allied the early Protestants behind universal marriage and many children. Channeling these impulses into a full-fledged populationist doctrine were the state-building monarchs, who sought out every tool at their disposal to expand trade, increase tax revenue, arm troops, suppress feudal rebels, acquire new territories, hold gaudy courts, sponsor great works of art, and in general celebrate their own autocratic magnificence. Key among those tools (or so these rulers and their advisers thought) were policies that would increase their nation's population.

The era lasting from roughly 1450 to 1750 in Europe thus showcased an unparalleled obsession with the connection between demography and geopolitics. And most of it consisted of a one-sided advocacy of populationism—a virtuous circle of higher birthrates, more employment, more income, more taxes, more public works, attractive opportunities for immigrants, and exploitative opportunities for emigrants. Henry IV of France thought that "the strength and riches of kings consist in the number and opulence of their subjects," while Frederick the Great of Prussia considered it axiomatic that "the number of people makes the wealth of states." "In the multitude of people is the king's glory," observed Jacques Bénigne Bossuet, the renowned French orator and political theorist. Bernard Mandeville, the English philosopher and political economist, called a growing population "the never-failing Nursery of Fleets and Armies."[38] As late as the 1750s, Denis Diderot contributed an entry called "Puissance" to the *Encyclopédie* in which he explained that a nation's strength lies in its numbers.

The next turning point came in the late eighteenth century. Enjoying higher living standards and steeply declining mortality rates (especially among children, which was equivalent to a boost in the birthrate), the population of Western Europe began growing at an accelerating rate. The demographic transition was under way. At the same time, many royal advisers and pamphleteers shifted focus and began pointing out some of the costs of rapid population growth, from crowded cities and teeming migrants to high rates

[38] For Henry IV, see Stangeland, *Pre-Malthusian Doctrines,* 103; for Frederick the Great, see *Oeuvres de Frédéric le Grand*, vol. 4 (Berlin: Rodolphe Decker, 1846), 4; for Bossuet, see Jacques Bénigne Bossuet, "Politique tirée des propres paroles de l'écriture sainte," in *Oeuvres de Bossuet*, vol. 1 (Paris: Firmin Didot Frères, 1841), 457; and for Mandeville, see Bernard Mandeville, "The Fable of the Bees: or, Private Vices, Publick Benefits," in *Bernard Mandeville: The Fable of the Bees and Other Writings*, ed. E. J. Hundert (Indianapolis: Hackett Publishing Co., 1997), 122.

of unemployment and large numbers of abandoned children. Then, in 1798, an erudite English parson named Thomas Malthus published *An Essay on the Principle of Population*, an instant sensation across the salons of Europe, which offered a radical reappraisal of the effect of population growth on social welfare and state power. A growing population does not make us better off, Malthus argued. By overwhelming the availability of natural resources (especially land), a growing population must ultimately impoverish society and make us worse off. Standard populationist measures, such as bounties for extra children, are not merely ineffective; they are counterproductive.

It would be difficult to overestimate the influence that Malthus has exercised over the subsequent two centuries. As population growth sped up and the Industrial Revolution took off during the "hungry '40s," Europe's aristocracies and bourgeois electorates regularly invoked Malthus to justify their new doctrine of market liberalism and their hostility to social welfare programs. Toward the end of the century, imperialists across Europe regularly invoked him to justify their colony-building projects. From the French Revolution to World War I and beyond, most economic and social policy theorists (especially in England) paid homage to his doctrine—from David Ricardo, Frédéric Bastiat, Jean-Baptiste Say, and John Stuart Mill to Herbert Spencer, Alfred Marshall, Henry George, and Sidney and Beatrice Webb. In his famous book on the prospects of Europe in 1919, John Maynard Keynes worried that overpopulation had spawned the twin evils of militarism and bolshevism. "Malthus disclosed a devil," he wrote. "For half a century all serious economical writings held that devil in clear prospect. For the next half-century he was chained up and out of sight. Now perhaps we have loosed him again."[39]

Malthus' overpopulation "devil" continued to exert great sway over the rest of the twentieth century. Indeed, during the early post–World War II era, especially from the mid-1950s to the mid-1980s, antipopulationism (and antinatalism) dominated social and foreign policy thinking in the developed world to an extent having few if any historical parallels. This neo-Malthusian resurgence allied itself to extreme views on the scarcity of natural resources (exemplified by Paul Ehrlich's 1968 bestseller, *The Population Bomb*, and the Club of Rome's 1972 report, *The Limits to Growth*),[40] and was often combined with more general critiques of "industrial civilization" and the structure of

[39] John Maynard Keynes, *The Economic Consequences of the Peace* (New York: Harcourt, Brace, and Howe, 1920), 10.

[40] Paul R. Ehrlich and David Brower, *The Population Bomb* (New York: Ballantine Books, 1968); and Donella H. Meadows et al., *The Limits to Growth* (New York: Universe Books, 1972).

the "bourgeois family." Domestically, these views favored abandoning or at least de-emphasizing public incentives to get married or have children. Abroad, they favored aggressive campaigns to reduce birthrates in developing countries—not to prevent them from becoming strong and powerful (though some foreign leaders begged to differ), but rather to alleviate their demographic burden, promote economic development, and encourage a democratic way of life.

Yet even during these recent Malthusian centuries, there have been important countercurrents. It is no accident that Malthus' popularity has roughly coincided with the demographic transition and what Ehrlich rightly called a worldwide "population explosion" unique in human history (a tenfold growth in global population since 1700). Likewise, it is no accident that Malthus has usually fallen out of favor in countries or decades in which population trends have seemed to be moving the other way.

An interesting example is France, which experienced a rapid birthrate decline after Napoleon and hardly any population growth at all after the mid-nineteenth century. In 1870, France lost the Franco-Prussian War—a defeat widely blamed on inadequate troop numbers. Thereafter, it is hard to find any French thinker of much influence who still subscribed to Malthus' worldview. Instead, leading French intellectuals engaged in endless soul-searching about why the French had so few children, whether feminism was treasonous, whether their static population was a sign of decadence, what sort of pronatalist policies could turn the birthrate around, and indeed whether France could survive another war against Germany's rapidly expanding population.[41] In 1900, a French senator announced gravely to the media: "If French wives had the fertility of German women, we would gain 500,000 children per year."[42] The French preoccupation with raising their birthrate ultimately gave rise to generous public maternity benefits that help to explain why France (ironically) today has the highest fertility rate in Europe.

There are also revealing fluctuations in attitudes by decade. By the 1880s and 1890s, fertility had begun to decline throughout most of Western Europe. Combined with cheaper food and a huge boom in transatlantic shipping (bringing grain to Europe and Europeans to America), the fall in birthrates seemed to alleviate population fears, and Malthusian worries subsided for a time.

[41] See discussion in Joseph J. Spengler, *France Faces Depopulation: Postlude Edition, 1936–1976* (Durham, NC: Duke University Press, 1979); and Joshua Cole, *The Power of Large Numbers: Population, Politics, and Gender in Nineteenth-Century France* (Ithaca, NY: Cornell University Press, 2000).

[42] Quoted in Cole, *Power of Large Numbers*, 195.

A more dramatic reversal occurred in the 1930s. Beset by a further plunge in fertility, a severe economic depression, and new fears of war, leaders and writers throughout the world suddenly blamed slow population growth for everything from unemployment, trade wars, and political unrest to a more fundamental cultural decline. Keynes changed his mind and (with his followers) started to advocate population growth. The demographer Enid Charles wrote *The Twilight of Parenthood* in 1934, in which she announced that "in place of the Malthusian menace of overpopulation there is now a real danger of under-population."[43] Oswald Spengler and P. A. Sorokin suggested that demographic decline was a symptom of civilizational exhaustion.[44] Growing fascist parties advocated vigorous pronatalism as a cornerstone of their policy agenda. These alarmist worries and policy prescriptions climaxed with World War II. Yet even after V-E and V-J day, they remained strong enough to induce most of the developed nations to incorporate generous family benefits into their early postwar social welfare programs.

The neo-Malthusian resurgence of the mid-1950s to the mid-1980s coincided with an era that in many respects was the mirror image of the 1930s. Starting in the 1950s, the developed world experienced growing affluence and relative freedom from the threat of war. Domestically, it witnessed a renewal of strong population growth, at least until the 1970s. Abroad, it noticed a spectacular acceleration of global population growth as the developing world entered its own demographic transition. From 1950 to 1973, the world's population grew at an average annual rate of roughly 2 percent. It had never before grown at such a high rate for so long—nor, from today's vantage point, does it seem likely to ever do so again. As population projections for the developed countries have collapsed, and as the generation that recalls fascist pronatalism disappears, yet another shift in prevailing attitudes—this time back to worries about population decline—is well under way.

A number of useful themes emerge from this retrospect that will add some historical depth and context to this report.

First, the issue of population and power has an ancient pedigree. Political leaders have worried about it since the dawn of civilization. Over the centuries, moreover, their concern has almost always been to avoid population decline and to encourage population growth. From time to time, great minds have expressed a dissenting point of view (Aristotle, for example, once famously wrote that "a great state is not the same as a populous state"), but

[43] Quoted in Longman, *Empty Cradle*, 75.

[44] Oswald Spengler, *Der Untergang des Abendlandes* (Munich: Beck, 1918); and Pitirim A. Sorokin, *Social and Cultural Dynamics* (New York: American Book Co., 1937).

there is little evidence that leaders listened to such advice (Aristotle's illustrious Macedonian patrons clearly did not).

Second, to the extent that populationism has yielded to an anti-growth agenda, it has done so in eras of unusual population growth. This explains the overall ascendency of Malthusianism after the late eighteenth century—not just in Europe but in China as well, which also experienced rapid population growth beginning around 1750.[45] This also explains why, even over the last two centuries, the direction of thinking and policy has tended to shift back and forth with the prevailing (high-growth or low-growth) demographic outlook.

Third, the favorite policy prescriptions for encouraging population growth have actually changed very little over the centuries. The senate and emperors of Rome enacted monetary bounties for families with many children, monetary penalties for bachelors, and status-enhancing inducements (like citizenship) for immigrants. Fifteen hundred years later, Louis XIV's finance minister, Jean-Baptiste Colbert, was recommending the same menu of options. And in the capitals of today's developed countries, one finds plenty of policy working papers still pushing a similar program. The U.S. reputation as a nation of immigrants has a direct parallel (disliked by conservatives but admired by neoconservatives) in Rome's own reputation as a "universal empire." Even brutal measures of "demographic engineering," such as deportation, relocation, colonization, and genocide, have not changed much. Germany and the Soviet Union used them in the twentieth century. So did the Assyrians, Romans, Mongols, and Turks in earlier centuries.

Fourth, leaders have been perpetually disappointed by their population policies—by how they fail so much more often than they succeed. This has triggered an endless debate over the centuries about how to influence behavior more effectively. The debate has typically pitted paternalists, who believe that people can be made to do their demographic "duty" mostly by means of commands or bribes, against liberals, who believe that better results come from giving people more economic opportunity and a broader range of social and lifestyle freedom. This debate is as alive and well in the twenty-first century as it was in the eighteenth. To raise birthrates, some today advocate policies that would reinforce an exclusive maternal role for women, while others advocate policies that would give women more choices (such as having a career while also raising children). History's track record shows that, though it is the paternalistic policies that have usually been enacted, it is the liberal policies that have usually been more effective.

[45] See Gabe T. Wang, *China's Population: Problems, Thoughts, and Policies* (Brookfield, VT: Ashgate, 1999).

Finally, from ancient times to the present day, there has always been uncertainty about the direction of causation. Does population growth cause a state to be successful at home and abroad? Or is it the other way around—that is, does a state that is successful (for whatever deep social or cultural reason) merely experience population growth as a dimension of that success? Policy advisers have usually leaned toward the first answer, because they and the leaders they counsel like to believe they are in control of the state's destiny. Yet ancient philosophers often inclined toward the second answer. Many believed in an organic metaphor for the polis: Political societies, like human beings, experience birth, growth, maturity, senescence, and death. Young societies are simple, innocent, virtuous, egalitarian, and tend to have many youths. Old societies are complex, experienced, decadent, stratified, and tend to have many elders. In time, all societies naturally cycle from young to old, and it is not clear whether they can do much to change that.

Among the Greeks, Polybius subscribed to this cyclical view of social and political evolution; among the Romans, Tacitus, Juvenal, and even Petronius; in the Middle Ages, Ibn Khaldun; in the Renaissance, Machiavelli. In the 1920s and 1930s, we associate this view with Oswald Spengler's *The Decline of the West* (which was itself inspired by Otto Seeck's *Decline of Antiquity*).[46] In our own day, we may think of Joseph Tainter's *The Collapse of Complex Societies* or simply Jared Diamond's *Collapse*.[47] What all of these interpretations have in common is the idea that social evolution—demography included—is governed by a metahistorical dynamic that may not allow much room for leaders or citizens themselves to intervene. Although this doctrine is not one that confident policymakers will accept easily, it also offers some humbling insights that they would do well not to ignore entirely.

So much for what history's leading voices on the subject have thought about the connection between population and power. Let's now turn to a very different question: What does the past itself actually say about the connection? What does history teach us about the effect of population size, growth, and age structure on a nation's influence and power?

In our view, the historical track record is fairly clear: All other things being equal, size is an advantage. With its larger population, the bigger state can mobilize larger forces and occupy more territory. With its larger economy (due to its larger population), the bigger state can arm and supply larger

[46] Spengler, *Untergang des Abendlandes*; and Otto Seeck, *Geschichte des Untergangs der Antiken Welt* (Berlin, 1897).

[47] Joseph A. Tainter, *The Collapse of Complex Societies* (Cambridge, UK: Cambridge University Press, 1988); and Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Viking Press, 2005).

forces, exert more pressure on global trade and finance, and enjoy important efficiencies of scale in its markets and public works. With more people and more production, the bigger state can wield more cultural and policy influence on the world stage (soft power) and, if conflict arises, can more easily compel an adversary to settle on terms of its choosing (hard power). Indeed, if the history of war teaches any obvious lessons, one is that victory usually goes to the larger party or alliance—particularly when victory is of critical importance to both sides.

We explain this argument in some detail and cite data to support it in chapter 3. It is as valid for the long term as it is for the near term. Armed with exactly the same reasoning, Alexis de Tocqueville was able to make his astonishing prediction (in 1835!) regarding the United States and Russia. He wrote that one would stand for "freedom" and the other for "servitude." He also wrote that "each of them seems marked out by the will of Heaven to sway the destinies of half the globe."[48] Tocqueville's method, revealed in a footnote, was simple. He observed that these two societies were filling large empty continents, and then he just did the arithmetic.

Here may be a good opportunity, however, to acknowledge some of the limitations of sheer size. Some have suggested that there are important diseconomies of scale—when a state overwhelms its natural environment, for example, or when it becomes overly complex and bureaucratic. These points are well taken. There are cases in which the natural environment literally prevents growth (which is why so many of the Greek city-states promoted emigration and founded new colonies). There are also cases of states becoming so highly evolved and convoluted as they grow that they become dysfunctional (one instance, perhaps, accounting for our word "byzantine"). Similarly, one cannot blindly compare the size of states without regard to their political type. To say, for example, that in 1914 the Austro-Hungarian empire was "larger" than Great Britain would not be meaningful, since one was a rambling federation and the other was a modern nation-state. Still, while allowing these exceptions and caveats, our overall conclusion stands. Most of the time, it is the larger states that shape the geopolitical order to their liking—an advantage that grows with the degree of crisis and conflict besetting that order.

A further concession is that superior population size, though helpful, hardly guarantees success. Yes, there are many classic instances of total-war struggles for domination in which the larger side came out on top: World Wars I and II, for example, or the U.S. and English Civil Wars. But there are

[48] Alexis de Tocqueville, *Democracy in America*, ed. Francis Bowen, 3rd ed. (Cambridge, MA: Sever and Francis, 1863), 559.

also many counterexamples, such as Queen Elizabeth I against Ferdinand II or Alexander the Great against Darius III. In the early fourteenth century, the Chinese historian Ma Duanlin noted that the Mongols had conquered the Song Dynasty despite their much smaller numbers—and he marveled at how this could happen.[49] One wonders: Is there perhaps another demographic indicator that may have better or additional predictive value?

An intriguing possibility, suggested by the ancient organic metaphor for state growth and decline, might be to look not just at population size, but also at the rate of population growth. To be sure, a high rate of population growth is by no means a *sufficient* condition for success. Most states with high growth rates are not particularly successful, and indeed many are especially weak, mired in poverty, and prone to civil strife and foreign invasion. Yet a relatively high growth rate may be a *necessary* condition for success. Throughout history, in a remarkable variety of instances, those states or alliances that have ultimately prevailed over their neighbors turn out to be those whose populations were growing faster than their neighbors'. In the ancient world, this was true (in different periods) for the Persians, the Greeks, the Macedonians, and the Romans. It was certainly true for the Norse and the Mongols. In modern Western history, it has been true for Portugal in the fifteenth century, the Netherlands in the sixteenth, Russia in the seventeenth, Great Britain in the eighteenth, Germany in the nineteenth, and the United States in the twentieth. On the other hand, it is difficult to find any major instance of a state whose regional or global stature has risen while its share of the regional or global population has declined.

Ever since Edward Gibbon's account of the barbarian invasions of the Roman empire, historians have noted the unusual dynamism and confidence that sometimes characterize high-growth populations. The eminent historian William H. McNeill, who has written extensively on this subject, believes that demographic pressure—by shattering traditional village and family roles and creating a whole new class of rootless youth looking for opportunities—pushes the entire society toward new and riskier political goals.[50] Often, perhaps most of the time, the energy dissipates. But occasionally a juggernaut is unleashed. McNeill believes that it was demographic pressure that drove the expansion of China and Great Britain in the eighteenth century, triggered the modernization of Japan after the Meiji Restoration, and pushed Central Europe into both World Wars I and II. He notes that "growing populations

[49] Cited in Wang, *China's Population.*

[50] William H. McNeill, *The Pursuit of Power: Technology, Armed Force, and Society Since A.D. 1000* (Chicago: University of Chicago Press, 1982); and William H. McNeill, *Population and Politics Since 1750* (Charlottesville, VA: University Press of Virginia, 1990).

do not voluntarily leave their neighbors alone and at ease within existing economic, political, and social frameworks."[51] Some academic research confirms that higher-growth societies are more likely to initiate interstate conflict.[52]

To the extent that the reckless energy of higher-growth societies is driven by their relatively large numbers of young people, this dynamic is related to the youth-bulge model discussed in chapter 4. An extreme version of this model has been advanced by the sociologist Gunnar Heinsohn, who believes that nearly all civic energy and risk-taking (and violence) in history is driven by the "excess sons" of large families who must undertake new enterprises in order to win social status.[53] In sixteenth-century Spain, these were the *secundones*, the second sons who became conquistadores because they would inherit no land at home. In the twenty-first century Middle East, he says, they are the prime recruits for terrorist organizations.

The policy implications of this dynamic are subtle. Fast-growing, youthful societies clearly bear close watch due to their greater overall volatility. These societies are prone to instability and state failure. Yet occasionally, one will emerge as a regional hegemon—and this will almost always be a society that is growing more rapidly than its neighbors. Beyond these useful lessons, however, the dynamic does not offer either fast- or slow-growing societies any easy formula for success. Like most models that derive from an organic metaphor, it leaves the policymaker searching for a handle. Heinsohn is hesitant to offer concrete recommendations. McNeill merely tantalizes his readers with his own cyclical perspective on the rise and fall of nations.

CONCEPTUAL FRAMEWORK OF THE REPORT

We turn now from the past to the future—and our effort to look ahead at the major demographic forces that will be shaping geopolitics until 2050. This effort will require long-term demographic and economic projections. It will also require full disclosure up front about how we assume the next half-century will unfold. Looking ahead 50 years will strike many as a risky exercise

[51] McNeill, *Population and Politics,* 51.

[52] See *Multidisciplinary Perspectives on Population and Conflict*, ed. Nazli Choucri (Syracuse, NY: Syracuse University Press, 1984); and Jaroslav Tir and Paul F. Diehl, "Demographic Pressure and Interstate Conflict: Linking Population Growth and Density to Militarized Disputes and Wars, 1930–89," *Journal of Peace Research* 35, no. 3, Special Issue on Environmental Conflict (May 1998).

[53] Gunnar Heinsohn, *Söhne und Weltmacht: Terror im Aufstieg und Fall der Nationen* (Zurich: Orell Füssli, 2006).

in prophecy—and as H. L. Mencken declared, "The prophesying business is like writing fugues; it is fatal to everyone save the man of absolute genius."[54]

To avoid risk, and to disavow any claim of special prophetic insight, we need to spell out our assumptions and our framework. In general, this report presupposes that the future will resemble the recent past in terms of basic social attitudes, political behavior, and economic trends, except in those instances (and there are many) where we suggest these could shift in response to demographic change. We have nothing to say about the great wild cards of history, such as epidemic disease, nuclear terrorism, renegade nanobots, catastrophic climate change, and so on. They are all obvious and identifiable exceptions to a default or "baseline" future. But there are certain basic assumptions that do merit some discussion because each of them is sure to be violated in some way (large or small) by future events. These are our assumptions about technology, natural resources, social change, and political organization. For the sake of clarity, we also need to explain how our approach is relevant to different schools of geopolitical thought.

Technological change, of course, is one of the great unknowables of the future. For our purposes, the most important impact of any technological surprise will likely be on global economic performance—and specifically, on productivity growth and national income over time. We discuss, in various chapters of this report, how demographic change may influence productivity growth (through its impact on business investment, human capital, and government policy). But what about the influence of technology?

Let's make a couple of speculative observations. On the one hand, if the pace of technological discovery, invention, and innovation lags behind the trend of recent years—pulling down the projected growth rate in global living standards—then the geopolitical consequences will almost certainly be negative. In most of the developing world, disappointing income trends, when added to other development stressors (such as unemployment, inequality, urbanization, and religious or ethnic conflict), are strongly associated with higher levels of civil violence and revolution and possibly with movement toward more authoritarian rule (see chapter 4). In every region, developed and developing, a lasting economic downturn will tend to trigger anti-growth government policies that compound the problem.[55]

On the other hand, if technological progress speeds ahead of trend, then the consequences will probably be mixed. Unexpected prosperity, to be sure, will be helpful to the economic, social, and political development of most

[54] Henry Louis Mencken, *Prejudices: First Series* (New York: Alfred A. Knopf, 1919), 21.

[55] This argument is set forth at some length in Benjamin M. Friedman, *The Moral Consequences of Economic Growth* (New York: Alfred A. Knopf, 2006).

low-income nations. This will unambiguously improve the geopolitical environment. Yet as we explain in chapter 3, higher rates of technological progress hasten the depreciation of existing physical and human capital (most of which is in developed countries) and give an extra edge to younger inventers, innovators, and workers (who are relatively more plentiful in high-growth developing countries). This will quicken the pace at which aspiring low-income economies can expect to catch or surpass today's high-income economies. From the security perspective of the United States, Europe, or Japan, this may not be regarded as a welcome outcome.

Technological discoveries may also have important consequences for military hardware, training, and tactics—and thus for national defense strategy. Here too, it is more probable that a slower rate of innovation, on balance, will favor the geopolitical outlook for the United States and the developed world. Radical leaps in war technology tend to favor the offense and the element of risk and surprise—and thus, we may assume, tend to favor challengers rather than defenders of the geopolitical order. Also, like radical leaps of technology in the economy, they tend to level the playing field by devaluing existing investments in the prior generation of war technology and by empowering younger military innovators. We summarize these arguments in chapter 3.

The economics of natural resources, especially fossil fuels, could loom large over the next half-century. Practically every long-term energy projection shows surging demand for fossil fuels as hundreds of millions of families in the developing world (especially in East and South Asia and in Latin America) seek to join a home-owning and car-owning middle class. If, as some energy economists believe, global supply cannot grow nearly as fast, prices will climb to levels far higher than they are today.[56] The geopolitical consequences of a twofold or fourfold jump in energy prices would certainly be negative. For most of the world, it would translate into a significant income loss. For a few regions and countries—the Arab world, Central Asia, Russia, Iran, Nigeria, and Venezuela—it would translate into a massive income gain. Many of these recipients are already serious security threats, however, and are likely to remain so for the foreseeable future. More importantly, as chapter 4 explains, many are experiencing extreme demographic changes that will render them potentially unstable (or worse, cohesive and hostile) for decades to come.

Social attitudes and values may also change in important directions that we cannot now foresee. A major set of questions concerns religion. One might speculate on whether religion will become more or less important in

[56] The "peak oil" thesis is laid out in Matthew R. Simmons, *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy* (Hoboken, NJ: John Wiley & Sons, 2006).

the developed world, whether Christianity will continue to spread in sub-Saharan Africa and East Asia, whether Islam will gain more converts among Western Europeans, or whether Islamism will grow more accommodating to democracy as it is reinterpreted by the children and grandchildren of today's extremists.[57] The answers, we will see, may have important implications for fertility behavior, as well as for civic cohesion and geopolitical sympathies. Other major questions concern the appeal of nationalism, ethnic loyalty, and "family values." Many observers believe that both nationalism and ethnic partisanship are today on the rise—especially the two in combination, "ethnonationalism."[58] The diminished size of the nuclear and extended family, along with the tendency for family social functions to be replaced by government, may accelerate this trend (see chapters 2 and 3).

Forms of political organization may continue to evolve in the future, just as they have in the past. Over the last several centuries, and especially since the mid-nineteenth century, the unified nation-state has vastly increased its size, resources, and legitimacy at the expense of almost every other type of civic affiliation. During the decade following the end of the Cold War, a period that saw the dissolution of the Soviet Union, the birth of the EU, and the expansion of NATO, many experts predicted that this concentration of national power would soon unravel. In its place, they suggested, the world might gravitate toward a decentralized, variegated arrangement (sometimes called "neo-medieval" or "post-Westphalian") that would allow stronger government on both a supranational and regional level.[59]

We reject this suggestion. This report assumes that the nation-state, region by region, will remain at least as powerful as it is today. We do so in part because nationalism has recently demonstrated a popular resurgence (in Russia most of all). But we do so as well because, as a longer-term proposition, the nation-state almost always grows stronger during eras of global stress, instability, and threat of conflict—and also during eras in which a growing share of all citizens depend on the state for their support. We believe that all of the developed world and much of the developing world are now entering an era in which demographic change will ensure that both conditions prevail.

[57] For a comprehensive discussion of these questions, see Philip Jenkins, *The Next Christendom: The Coming of Global Christianity* (New York: Oxford University Press, 2002); and Philip Jenkins, *God's Continent: Christianity, Islam, and Europe's Religious Crisis* (New York: Oxford University Press, 2007).

[58] See, for example, *Ethnonationalism in the Contemporary World: Walker Connor and the Study of Nationalism*, ed. Daniele Conversi (London: Routledge, 2002).

[59] See, for example, Andrew Linklater, "Citizenship and Sovereignty in the Post-Westphalian State," *European Journal of International Relations* 2, no. 1 (1996).

Finally, it is worth reflecting on how our basic approach should, and should not, be interpreted by today's major schools of geopolitical thought. There is no denying that demographic change as a force in history has always been considered a staple of the realist school. It is linked to concerns about group survival having deep roots in our biology. It tends to focus more on the ability to survive and dominate rather than the ability to influence and cooperate. It is sometimes used to justify traditional family structures (as pro-natalist) and criticize new and unconventional social norms (as antinatalist). Idealists might complain that to focus on population and power is to focus more on who we are than on who we should be—to which realists might respond that who we should be can never escape the limits of who we are.

All this is granted. Yet we hope, in important respects, that this report transcends the conventional realist perspective. We pay close attention to how demographic change affects attitudes and aspirations, not just how it determines numbers and wealth. Unlike classical realists, we use a method that is both historical and global. We follow the path of each country's social and economic development and we acknowledge that the geopolitical order depends upon a working "world system." By failing to regard demographic trends as global phenomena, many realists do not appreciate their full significance. Nor, in our review of fertility trends in chapter 2, do we find any evidence that a return to conventional gender roles would raise birthrates. To the contrary, the persistence of traditional family structures in countries like Japan, South Korea, and Italy is one reason their fertility rates are so low.

We hope, as well, that foreign-policy idealists may find our conclusions useful, if not always welcome. Many in this camp, for example, favor stronger global governance led by the developed countries, within which the United States would play a smaller role. Demographic trends, however, point in just the opposite direction: to a weaker developed-world presence, within which the United States will be playing a larger role. Some would like to see market capitalism cover Africa by mid-century, or liberal democracy take root throughout Asia. Some would like to see closer ties between North America and Europe—and to see governments on both continents spend much larger sums on global development assistance. Some would like to see these governments rely increasingly on soft power (that is, an attractive cultural and ideological message) to orchestrate affairs in an increasingly pacific world community. The following chapters explain why none of these futures is especially likely.

We choose no side in the contest over worldviews. We agree that states make choices based on their own interests. We also agree that states can cooperate and build a better world. Instead, we simply offer a wake-up call.

Both schools, realist and idealist, have been slow to focus on the massive demographic riptide due to sweep over the world during the next several decades. We need to improve the projections, debate their implications, and determine our strategic responses. Preparing for the 2020s and navigating the decades beyond will call on contributions from all schools of thought. It is a mission that will challenge the planning skills of every policymaker and the leadership skills of every statesperson.