Population

Over the next 20 years, the vast majority of the world’s population growth will occur in the developing world, in nations least capable of supporting it either politically, environmentally, or economically. The developed world will face its own set of challenges, including declining populations, rising aging segments, and changing migration patterns.

It is difficult to imagine the remarkable changes that have occurred historically when it comes to population, so consider how humanity arrived at this number. By the time Christopher Columbus reached the New World, global population had reached about 500 million. By July 1, 2009, total population had increased by a factor of more than 13, to 6.7 billion—the majority of this growth having occurred between the end of the World War II and the present. By 2025, global population will likely reach 8 billion; and by 2050 there will be around 9.15 billion people on Earth. This addition of some 2.4 billion people to the global family (from 6.8 billion in April 2009 to nearly 9.2 billion by 2050) will strain economic and social systems and put unprecedented pressure on the allocation of scarce resources.

Developing Countries

Eight countries are expected to account for the majority (52.3%) of the world’s population in 2050. Seven of these countries (India, China, Pakistan, Nigeria, Indonesia, Bangladesh, and Brazil) are from what we now call the developing world. Over the next 20 years, 80% of population growth will occur in countries in sub-Saharan Africa and South Asia—some of the poorest, least-stable parts of the world. The population in the least-developed countries—those 49 countries defined by the United Nations as the poorest in the world—is expected to double by the middle of the century, from 0.84 billion in 2008 to a projected 1.7 billion in 2050.

While the numbers problem is daunting itself, one must also factor in the effects of disease. HIV/AIDS, in particular, has devastated these parts of the world. The HIV/AIDS pandemic has plucked working adults out of their prime, leaving behind millions of orphaned children and tearing a hole in the social fabric of these nations. Here, the youngest segment of the population, newborns to 14-year-olds, comprises nearly 40% of the population. Compare this to only 20% in North America and western Europe. Countries in the Middle East and Africa also have extremely high youth dependency ratios (the percentage of young people dependent upon the working age population) that limit economic growth by forcing governments to devote a high percentage of their resources to social programs for families. History alerts us to the dangers of a teeming youth population. Countries that experience instability, terrorism, and violence often have some of the youngest populations on the planet.

Developed Countries & Aging

In much of the developed world, by contrast, population levels are plateauing or even declining. Into the next decade, some developed countries will begin to experience static or even negative population growth. By 2025, at least 20 countries, primarily in eastern Europe, will be less populous than they are today. By 2030, one in four (25.8%) persons in western Europe will be over the age of 65; in 1950, the corresponding number was one out of every ten (10.2%). Advances in science and technology have allowed many to enjoy longer life spans than their parents and grandparents ever imagined. However, when a population grays and shrinks at the same time, as will be the case in large parts of the developed world, profound social, economic, and political changes are inevitable. In these countries, an increasing share of taxes will go to the rising cost of entitlement spending for the elderly. As the workforce shrinks, gross domestic product will also contract, further limiting the ability of governments to make good on social spending. With time, these aging nations will be forced to look beyond their borders for young laborers, setting the stage for seismic social and cultural shifts.
Migration and Urbanization

People, in large numbers, will move into urban centers in pursuit of higher paying jobs and better access to services. By 2050, nearly 70% of the world’s population will live in cities, representing an influx of 3.1 billion people over the next 40 years. While urbanization presents an opportunity for rural workers to modernize their skills and improve their lives, rampant urban poverty could result if governments are unable to support such growth. Migration from the countryside may threaten food security, as a smaller number of farmers will be producing agricultural goods for a larger number of urbanites incapable of growing their own food. While some will move from the countryside to the cities, others will leave the country altogether. The poor will continue to immigrate to richer countries. They may do so in higher numbers, though, as developed countries become more desperate for working-age adults. Governments in the developed world may face serious challenges, however, if they are unable to reconcile the needs and desires of their native populaces with the needs and desires of immigrant groups.

Discussion Questions

Use the questions below to structure a discussion on the promise and peril of population and demographic trends. Sources to complement your consideration of these important issues are suggested.

1. What difficulties—from retiring baby boomers in the United States to a graying China, to the massive overhang of Europe’s elderly—can private corporations, governments, and other sectors expect as the aging revolution unfolds across the globe? How will changing demographics affect workforce composition? Retirement age? Pension outlays? Taxation? Immigration? Economic growth? How can governments, corporations, and nongovernmental organizations work together to address these issues?

2. Immigration already accounts for over 60% of population growth in developed countries. Do you believe that governments in developed countries are ready to deal with the massive immigration that will accompany, in many cases, a sharply decreasing number of citizens? What recent world events encourage pessimism or optimism in this regard?

3. According to the United Nations Population Division, by 2050 the four most-populous countries will be India, China, the United States, and Pakistan. What will this mean for the geopolitical balance of power? Pakistan is a prime example of the overarching global trend of the highest population growth occurring in countries with the lowest prospects for economic development, the most dire resource scarcities, the most daunting public health challenges, and the least transparent and effective systems of governance. What will be the impact of this population growth in terms of global stability and security?

Bibliographic Materials from CSIS

- Visit the CSIS Global Aging Initiative (http://csis.org/program/global-aging-initiative/) to learn more about the international economic, financial, political, and security implications of aging and depopulation. Learn more about how global aging will affect eastern Europe, Latin America, East Asia, and South Asia in the decades to come. See particularly Neil Howe and Richard Jackson’s The Graying of the Great Powers.

- The CSIS Global Strategy Institute Video Interview Library (http://gsi.csis.org/videolibrary) has an interview with Richard Jackson, director of the CSIS Global Aging Initiative, on demographic trends.

Web Resources


- The Population Reference Bureau (http://www.prb.org/) provides detailed articles, datasheets, and reports on key population issues including mortality rates, gender, race/ethnicity, and fertility. PRB also offers specific country data.

Further Reading


Population Facts

- More than 1.5 billion people are between the ages of 10 and 25. This is the largest-ever generation of adolescents. More than half of them live on less than two dollars per day.\(^\text{13}\)
- In 2008, the number of people living in cities surpassed the number living in rural settings for the first time in history. By 2030, 81% of these urban dwellers will live in cities in the developing world.\(^\text{14}\)
- Between 2007 and 2025, the population of the developed world is expected to grow 3%, while the population of the developing world is expected to grow 49%.\(^\text{15}\)
- Between 2000 and 2030, the urban populations of both Africa and Asia will double.\(^\text{16}\)
- Out to 2050, the United States, Germany, Canada, the United Kingdom, Spain, and Australia will be the primary destinations for a majority of international immigrants, while China, Mexico, India, Philippines, Indonesia, and Pakistan will be the primary suppliers of these migrants.\(^\text{17}\)

Notes

5. As set out in UN General Assembly Resolutions 59/209, 59/210, and 60/33 in 2007. Of the 49 countries, 33 are in Africa, 10 in Asia, one in Latin America and the Caribbean, and five in Oceania. See “Definition of major areas and regions,” World Population Prospects: The 2008 Revision.
7. Ibid.
10. Ibid.
11. Ibid.
Resource Management

Have we reached or surpassed the limits of sustainability? What will it take to support a global population of some 9.2 billion by the middle of the century? To begin addressing these questions, one must look at the strategic resources of food, water, and energy and the complex interlinkages between them. How leaders meet the challenge of managing these resources will affect economic development, poverty reduction, social welfare, geopolitics, and stability and security the world over.

Food and Hunger

Thanks to advances in agricultural technology in the second half of the twentieth century, farmers have dramatically increased their crop yields, helping the world avert a once-predicted fate of mass starvation and malnutrition. Despite this progress, the world is nearing a point of diminishing returns. Poor land management and the overuse of fertilizers are causing land degradation, soil erosion, and desertification on a massive scale in agricultural areas from the Amazon to the Yangtze. Degradation, on top of sharp increases in food prices over the past decade, has left many in the developing world without the land or the means to grow their own food. The dual forces of rising oil prices and increased production of biofuels have exacerbated this problem by increasing the supply-side cost to farmers, in addition to diverting staple crops away from kitchen tables.

Water

According to John Hamre, CSIS president and CEO, “what is now a global water challenge will soon become a global water crisis.” Almost 4 billion people will live in areas of high water stress by 2030 if governments and individuals do not change their habits and use this finite resource more responsibly.

Did You Know?

An investment of US $11.3 billion per year is needed to meet the drinking water and sanitation target of the Millennium Development Goals.


Today, more than 884 million people, or one out of every eight people, live without safe or reliable access to this resource. Inadequate access to water is linked to malnutrition, underdevelopment, and geopolitical instability, and these problems will likely persist into the coming decades unless we dramatically change our perceptions of this resource (too much water). The scarcity problem is only compounded by the predicted “rise of the rest” developing nations like China and India—and their growing appetite for consumption. Affluent individuals use upwards of 660 gallons of water per day for their personal use and in the production of the products they consume, when only 13.2 gallons per person are required for survival. Future water shortages could significantly hinder economic development and precipitate serious tensions across the world.

Energy

Volatile oil prices and supply disruptions have led to international spats verging on geopolitical crises in recent years, and it is likely that tensions will flare again in the future with world energy demand expected to grow 45% by 2030. By that time, fossil fuels will account for 80% of our energy use. Despite continued pressures on the physical environment, fossil fuels will continue to dominate as the world’s primary energy supply, with renewable energy making only modest gains. Aggregate increases in alternative sources of energy will likely be offset by high consumption of coal, oil, and natural gas driven by the astronomical rise of China and India. Together, these two countries will be responsible for more than half of the increase in energy demand by 2050. Governments and private companies across the world are pouring money into energy development projects to keep up with domestic demand and to capitalize on burgeoning industries. One major study found that the United States is capable of producing enough biomass-derived ethanol—90 billion gallons annually—to displace nearly a third of gasoline use each year by 2030, though with tremendous upfront costs that make little sense when oil prices are low.

Our addiction to fossil fuels comes at a great cost to the environment. Recent evidence suggests that our penchant for petroleum may inflict irreversible damage, with one study finding that carbon dioxide emissions affect climate systems thousands of years into the future. A truly global plan of action to address climate change remains elusive, as evidenced by the failure of nations to come together at Copenhagen. May become increasingly difficult for nations to cooperate when oil wells start to run dry.

Discussion Questions

Use the questions below to structure a discussion on the promise and peril of resource management. Sources to complement your consideration of these important issues are suggested.

1. How are the strategic resources of food, water, and energy interrelated? How will improved living
standards increase demand for these resources? How can countries develop sustainable strategies for ensuring the availability of these resources for human health and economic growth?

2. Despite skyrocketing demand for energy, a transition from fossil fuels to alternative sources of energy on a large scale is not expected to occur in the short term. Why? What actions could be taken to speed this transition? What is the long-term cost of a gradual versus a rapid move to alternatives?

3. How does poor governance in donor and recipient countries hinder the dissemination of water purification and sanitation technologies to communities in need around the globe? What steps can be taken to work around existing obstacles of governance?

Bibliographic Materials from CSIS

- The CSIS Global Water Futures Project (http://csis.org/program/global-water-futures) focuses on the strategic resource management of water, including several recent publications.

- Frank Verrastro directs the Energy and National Security Program at CSIS (http://csis.org/program/energy-and-national-security) where he, Bob Ebel, and other CSIS scholars examine issues that include nuclear energy, Caspian energy, oil market studies, and strategic issues of energy. Recent publications include “The Changing Geopolitics of Energy.”

- Dr. Anthony Cordesman, CSIS Arleigh A. Burke Chair in Strategy (http://csis.org/program/burke-chair-strategy), conducts a number of research endeavors on Middle East energy and security and in areas pertinent to global energy policy and security.

- The CSIS Global Strategy Interview Library (http://gsi.csis.org/video-library) has clips from interviews with Frank Verrastro, director of the CSIS Energy and National Security Program, and Jerry Delli Priscoli, a senior adviser at the U.S. Army Corps of Engineers.

Web Resources

- Authoritative global sources include the United Nations World Food Program (http://www.wfp.org/) and United Nations Food and Agriculture Organization (http://www.fao.org/).

- The World Water Council’s (http://www.worldwatercouncil.org/) mission is to promote awareness and build political commitment on critical water issues at all levels.

- The FAO Water Development and Management Unit (http://www.fao.org/nr/water/index.html) provides knowledge, policy advice, and technical assistance to countries and international initiatives on issues of water, agriculture, food production, and security.

- The International Energy Agency’s annual publication entitled World Energy Outlook (http://www.worldenergyoutlook.org/) provides a global energy survey that includes detailed long-term projections of energy demand, energy supply, and CO2 emissions.

- The U.S. Department of Energy (http://www.energy.gov/) offers a range of resources on energy sources, efficiency, environmental implications, pricing trends, and new technology.

Further Reading


Resource Management Facts

- We have burned half a trillion tons of carbon since the 18th century and could burn an equal amount in the next 40 years.¹⁴
- There will be 611 million motor vehicles in India by 2050, compared to 254 million cars on American roads today.¹⁵
- By 2050, India’s demand for water will exceed all sources of supply.¹⁶
- China will triple its coal-fired electricity production by 2030 and will account for more than half of the increase in the world’s coal-fired electricity generation.¹⁷
- The 2005 Millennium Ecosystem Assessment estimates that between 5 and 20 percent of global freshwater use exceeds long-term sustainable supply. Agricultural applications raise even greater concern as an estimated 15 to 35 percent of irrigation withdrawals exceed sustainable limits.¹⁸
- The Food and Agriculture Organization (FAO) estimates that over a billion people are undernourished—the highest number in all of human history.¹⁹
- 998 million people, representing 30% of all urban dwellers, live in slums where they lack one or more of such basic services as access to basic clean water and sanitation facilities.²⁰
- Less than 1% of the world’s fresh water (0.007% of all water on earth) is accessible for direct human use.²¹
- 1.02 billion people do not have enough to eat—more than the combined population of the United States, Canada, and the European Union.²²

Notes

Technology

We are entering an era in which our world is starting to look more like science fiction. Computers are becoming faster and even more ubiquitous, medical breakthroughs are prolonging and enriching our lives, and machines are becoming smaller by the day.

Leaders across the world are looking to technology to solve a number of our most daunting crises in areas as diverse as climate change, resource scarcity, and global health. At the same time, as new technologies become embedded in our lives, we will be forced to address issues of privacy, discrimination, and even basic human interaction. Technology will increasingly test the ability of individuals, cultures, and governments to adapt to new opportunities and dangers.

Computation

Today’s computers are breaking performance records and they are doing so at an exponentially faster rate. Today, Cray Jaguar computer achieves computational capacities of 1.75 petaflops (1,750 quadrillion calculations per second), making it the most powerful supercomputer in the world and the first to break the petaflop barrier. This milestone is a testament to the performance heights new computers are reaching, and the history of the supercomputer itself shows the exponential rate at which feats like these are achieved. In 1961, the first computer able to compute in megaflops was constructed; in 1984, gigaflop speeds were reached; 1997, teraflops; 2008, petaflops; and it is predicted that between 2017 and 2019 supercomputers will reach speeds in the exaflops (quintillions of calculations per second) realm. This timeline shows that computers have reached the next-highest step in computing power in progressively shorter time periods, a phenomenon first recognized in 1965 by the cofounder of Intel, Gordon Moore. His finding, the eponymous Moore’s Law, states that the number of transistors that can be placed on an integrated circuit doubles every year. There are physical limitations to circuits as they are constructed today, however, and it is predicted that Moore’s Law will be valid only until 2029, after which time new technology will be required for improvements.

In addition to achieving higher speeds, computers are becoming even more ubiquitous. Wireless laptops, media players, and cell phones are just a few examples of how technology has become an integral part of our everyday lives—and not just in the developed world. The One Laptop per Child Foundation is producing low-cost, high-power laptops for children in developing countries. An astounding 750 million cell phone subscribers live in China. As materials become smaller, lighter, and less expensive and platforms more user-friendly, computers will become an even greater fixture of our daily lives.

Biotechnology and Genetics

The completion of the Human Genome Project, mapping the roughly 25,000 genes and sequencing the 3 billion chemical base pairs that make up the human genome, has opened up numerous paths for further exploration in biotechnology. Information gained from this undertaking will pave the way for tailored drug therapies, cleaner energy sources, disease-resistant crops, and more accurate forensic testing. In the next 10 years, a baby could have his or her genetic code mapped at birth to predict and begin treating future medical conditions. Some experts believe that these technological advances, combined with a better basic understanding of how the human body works, will allow us to significantly alter our own bodies by incorporating machines into them, which could yield improvements in health and life expectancy as well as mental and physical function. While these advances hold great potential, they also raise profound questions, from the ethical to the existential. Is it immoral for a doctor to tell a patient that he is predisposed to a late-onset genetic disorder for which there is currently no cure? Will the use of biotechnology fundamentally alter what it means to be human?

Did You Know?

Organovo is planning on releasing the first commercially available 3D bioprinter by the end of 2011, which can print human tissue.


Nanotechnology

Nanotechnology is not a science in and of itself, but rather an umbrella term for the study and development of structures, in a variety of fields, that are smaller than 100 nanometers. The potential applications for nanotechnology are diverse, ranging from medicine and materials to electronics and energy. Scientists have already made great strides in the field of nanotechnology with more than 1,015 nano-sized products available to consumers in 2009, mostly in the fields of health and personal fitness. Micro-electromechanical machines (MEMs), smaller than dust mites and formed out of microscopic gears, chains, and computer chips, are currently deployed in medicine, agriculture, supply chain management, materials science, and manufacturing. The most promising, and arguably most consequential, application for nanotechnology is synthetic biology—the redesigning of molecular-sized organisms—in what scientists are calling “the next big thing.” Nanotechnology is also proving to be a lucrative industry, one that by 2015 will contribute an estimated 1 trillion dollars to the global economy and employ 2 million workers. By that time, nanotechnology will have moved from the microscopic level down to the molecular and atomic scale. Currently, relatively little is understood about the safety risks associated with nanotechnology, a concern that is
likely to come to the fore as miniaturization is increasingly employed in the production of consumer goods.

Discussion Questions

Use the questions below to structure a discussion on the promise and peril of technological advancement. Sources to complement your consideration of these important issues are suggested.

1. Who should control our personal information? What will happen when an individual’s genome is routinely digitized and archived? Who should control such information? The government? The private sector? The individual? How can such information be secured? To what benefits and dangers does this information expose an individual?

2. In a coming age of personalized medicine—medicine based on the genetic makeup of an individual—scientists are predicting life spans of 120 years of age and beyond for children born today in parts of the developed world. How will longer, healthier lives change concepts of retirement? Of social security and pensions? This technology is unlikely to be widely available. What consequences will result from this furthering divide in access to healthcare between rich and poor, developed and developing worlds?

3. Only in its infancy, nanotechnology has already yielded materials harder than diamonds and technologies to attack cancer at the molecular level. It will likely be a trillion dollar industry by 2020. Surprisingly, it may also be the first industry to emerge simultaneously in the developed and developing worlds. How can we begin to address the massive technological gap between the developed and developing worlds in other fields as well?

4. Why is it important that developed countries not simply leave behind the developing world as they continue to innovate? Is Thomas Friedman correct in his statement that information technology is bridging the gap and allowing geniuses in developing countries to “innovate without having to emigrate”? Will we see the end of the emigration of skilled workers from the developing world or more internal migration of skilled workers within it?

Bibliographic Materials from CSIS

- The Technology and Public Policy Program (http://csis.org/category/topics/technology) at CSIS provides a look at emerging technologies and the issues they present for public policy and national security in the twenty-first century.

- The CSIS Global Strategy Institute Video Interview Library (http://ggi.csis.org/videolibrary) has clips from interviews with the following experts on technology:
  - Kelly Carnes, President and CEO, TechVision21
  - Anthony Fauci, Director, National Institute of Allergy and Infectious Diseases, National Institutes of Health
  - Joel Garreau, journalist, The Washington Post, and author, Radical Evolution Ray Kurzweil, inventor, Futurist, and author of The Singularity is Near

Web Resources

- The Top 500 (http://www.top500.org/) is the list of the 500 fastest supercomputers in the world and provides interesting information on trends as well as geographic location of computers.

- The Center for Responsible Nanotechnology (http://www.crnano.org/) researches nanotechnology-related issues—political, economic, military, humanitarian, and technological. Its purpose is to investigate the societal implications, long-range risks, and effective use of nanotechnology and to educate those who will influence its use or will be affected by it. The National Nanotechnology Initiative coordinates the multiagency U.S. efforts in nanoscale science, engineering, and technology. It gathers and conducts research on applications of nanotechnology and the societal and safety implications of the technology.

- The Project on Emerging Nanotechnologies (http://www.nanotechproject.org/) is dedicated to helping ensure that as nanotechnologies advance, possible risks are minimized, public and consumer engagement remains strong, and potential new benefits are realized.

Further Reading

In 2009, the U.S. government invested approximately $1.64 billion in nanotechnology research, more than three times as much as in 2001.17

Three thousand new pharmaceuticals will have been identified, tested, and commercialized by 2020 (up from 500 in 2000), thanks to information gained from the Human Genome Project.18

Notes

We have reached a point, as MIT’s Nicholas Negroponte has noted, at which “a fiber the size of a human hair can deliver every issue of the Wall Street Journal ever made in less than a second.”13

The advancement and speed of supercomputers happens so fast that the list of top performers has to be updated twice a year.14

About 60 percent of food products on U.S. shelves have at least one ingredient that is likely to be from a genetically engineered crop. Byproducts of soybeans, corn, canola, and cotton constitute the vast majority of these ingredients.15

Nanoscale sensors may someday be able to smell cancer. Scientists have mapped out the odor profiles for some types of skin cancer and are in the process of making a nano-sized device equipped with an electronic nose capable of detecting cancer’s scent; this would allow doctors to diagnose skin cancer without ever conducting a biopsy.16
While it is true that today much of the world has yet to reap the benefits of this revolution, the knowledge-based economy could ultimately help to lift entire countries out of poverty. As information technology continues to reach these individuals, they will be able to compete more directly with those in the developed world. In this new paradigm, constant learning and retraining will be not simply desirable, but essential.

Ideas

We are witnessing the growth of what former Federal Reserve chairman Alan Greenspan termed the “weightless economy”—an economy in which knowledge and technical capacity are contributing an ever-greater share to GDP. Historically, economic growth was tied inextricably to manufacturing—when one grew, so did the other. Today, however, developed countries are witnessing the contraction of their manufacturing sectors at the same time that most of their GDPs are expanding. The reason for this apparent contradiction is that ideas themselves are increasingly becoming commodities. Think about what gives today’s companies the edge:

- the ability to use the Internet and networking tools,
- a receptiveness to customer demands and new ideas,
- all-around creativity.

The “knowledge-based” economy is also turning traditional economic and legal models on their heads. While the Internet has lowered the barriers for well-meaning entrepreneurs around the globe to enter the market, it has also enabled more nefarious behavior ranging from piracy to cyber-warfare. It is estimated that up to 95% of music downloads are made illegally, but the majority of people who download music are otherwise hardworking, tax-paying citizens. As the information economy continues to grow, we will need to find a new mechanism that allows for the free exchange of ideas while preserving intellectual property rights and profitability.

Connectivity

Communication technologies are decentralizing information, allowing individuals and companies on opposite sides of the planet to collaborate and share ideas. As Thomas Friedman put it, “thirty years ago, if you had a choice of being born a B student in Boston or a genius in Bangalore, you probably would have chosen Boston.” Thirty years ago it was unlikely that anyone in the developing world, even a genius, could overcome poverty and rise to prominence in the West. Nowadays, according to Friedman, “anyone with smarts, access to Google, and a cheap wireless laptop can join the innovation fray.” As information technologies reach these workers, they will be able to compete more directly with those in the developed world. Unfortunately, greater connectivity also exposes organizations, governments, and citizens to the risks of fraud and even cyber-warfare. We have yet to see how governments will regulate this new online environment to promote national security and protect freedom of expression.

Lifelong Learning

It is estimated that young people currently entering the workforce will experience 10–14 major career changes in their professional lives. As the information economy takes root, workers will be required to refine their skills and learn new ones to remain competitive. In short, they must become lifelong learners. Workers will acquire new skills at cyber-universities through distance-learning courses tailored to meet their individual needs. Today, only a minority of the population enjoys access to higher education, with less than one-third of Americans over 25 holding bachelor’s degrees. It is estimated that by 2020 there will be 15 million new jobs in the United States requiring a college degree, but at current graduation rates, there will be a net gain to the labor force of only 3 million workers with those credentials. Even though matriculation and graduation rates have improved over the past few decades, colleges and universities will need to embrace new technologies and promote vocational training to meet the needs of our economic future and to keep the U.S. workforce competitive.

Open Source Society and Information Integrity

One of the emerging characteristics of our interconnected society is the notion that information should be not only available to all, but also modifiable by all. The term “open source” is usually used to describe software programs, but the ideas that it represents—public access and public ownership—will influence many other aspects of our lives, including our education system, our political system, and...
even popular culture. In essence, “open source” represents the decentralization of knowledge, and nowhere is this more evident than on the Internet. Blogs and wikis allow individuals to spread information and opinions to a wide audience while bypassing traditional news sources. Individuals are able to share artistic and creative talents on file-sharing and image-hosting websites without paying a dime. These applications of open source technologies will greatly lower costs and spur developments that would be impossible with traditional proprietary models, but their strength—their ability to be modified—may also be their downfall. With more people sharing more information on the Internet, it will become increasingly difficult to discern fact from fiction. While the diversification of sources of information enriches our awareness of the world around us, it in no way ensures that we are learning the truth.

Discussion Questions

Use the questions below to structure a discussion on the promise and peril of the knowledge era. Sources to complement your consideration of these important issues are suggested.

1. Are work and learning becoming “the same thing”? How can basic education prepare workers for a lifetime of adaptation, retraining, and continuing education? What role will the on-line world play in this process? How might online education level the playing field between developed and developing countries?

2. How has the media’s objectivity been affected by the explosion of information sources? Will individuals increasingly live in worlds of their own ideological and moral construction by further isolating themselves from competing ideas? Are we entering an era of “choose your truth”? How does information technology further expand the rifts between civilizations and between individuals in the same communities? How does it bridge those divides?

3. Information technology has changed the context in which governments must operate. Individual citizens and groups now have the ability to quickly organize and contest or influence the direction and mode of governance. From 24/7 news to flash mobs to blogs to political tell-alls, the rapid flow of information demands rapid results from systems of governance. How has information technology compressed the ability of governments and organizations across the board to implement long-term strategic planning? How has information technology redefined sovereign and cultural borders? How can the government leverage information technology to “fight back”? What kinds of skills and resources are needed by both the people sending the message and those receiving the information?

Bibliographic Materials from CSIS

- The Technology and Public Policy Program (http://csis.org/category/topics/technology) at CSIS offers a look at emerging technologies that are creating the knowledge era and the public policy and security issues they raise.

- The CSIS Global Strategy Institute Video Interview Library (http://gsi.csis.org/videolibrary) has a set of clips from an interview with Tom Adams, CEO of Rosetta Stone, on the importance of lifelong learning.

Web Resources

- The World Bank Group’s Global Information & Communication Technologies Department (GICT) (http://www.worldbank.org/ict/) plays an important role in developing and promoting access to information and communications technologies (ICT) in developing countries.

- The Pew Research Center for the People & the Press (http://people-press.org/) conducts opinion research and serves as a forum for ideas on the media and public policy.

Further Reading


In 2015, 80% of people currently in the workforce will remain; however, 80% of current technology will be replaced with new technology to which existing workers must adapt.13

Between the early 1980s and the Iraq War in 2003, American news coverage of foreign affairs dropped by two-thirds.14

William Nordhaus, an economist at Yale University, has calculated that fewer than 30% of the goods and services consumed at the end of the twentieth century were variants of the goods and services produced 100 years earlier.15

Half the world’s 6.5 billion people in 2007 owned a cell phone, up from 2 billion four years earlier.16
Economic Integration

Despite the international debate surrounding economic liberalization—one that is given fodder by the current global recession—it is likely that by 2025 the world will be more economically interdependent than it is today. The BRIC countries—Brazil, Russia, India, and China—and other rapidly emerging economies will increasingly become the world’s major economic players with respect to both production and consumption.¹

The March of Globalization

Globalization has forced the integration of emerging and developing markets into the global economy and increased the flow of goods and human capital through trade and investment. The benefits and costs of integration to both developed and developing countries have become clear in recent decades. The Eurozone’s GDP is now higher than that of the United States, a development that has encouraged European nations to join the EU and countries in other parts of the world to form competing trading blocs—the Southern African Development Community and the Eurasian Economic Community serve as notable examples.² Worldwide exports have increased dramatically, now representing 30% of GDP, up from 17% in the 1970s.¹ International bank lending grew from $265 billion to $4.2 trillion over the 19-year period from 1975 to 1994. People are even traveling more, with 880 million individuals trekking internationally in 2008, an 11 percent increase from 1980.³ ⁴ Despite any short-term dislocations, the global market, with the help of new technologies and proactive financial institutions, is expanding to include new groups of people each day.

While some treat economic integration like a free lunch, the true effects of globalization are a mixed bag. Our world is split largely between those who have benefitted greatly from integration and those who have not. Concerns over national identity, heritage, and culture have come to the forefront as more people, resources, and ideas are exchanged across borders. In countries as diverse as Italy, South Africa, Indonesia, India, and Turkey, restrictions on immigration enjoy the support of more than 80% of the population.⁵ This can be viewed as a negative reaction to the effects of globalization. In this era of porous borders and complex information flows, governments are becoming more aware of security threats and strategic weaknesses. By and large, people have benefited from economic integration, but we will need to critically examine the global economic system in order to spread its benefits more broadly and to avert the protectionism, prejudice, and illegal activity that can result from rapid economic integration.

BRIC Economies

If they can consolidate the conditions necessary for structural growth, by 2025 the sum of the GDPs of the BRIC economies could equal half the equivalent of the G-6 countries (United States, Japan, Germany, UK, France, and Italy). By 2032, assuming strong and sustained growth rates, the BRIC economies could overtake the G-6 altogether.⁶ China is leading in this race to the top because of its high levels of foreign direct investment and double-digit growth rates.⁷ Over the next 25 years, the GDPs of the BRIC countries will increase at breakneck speeds as they marshal their ample supplies of natural resources and human capital to economic development. However, over time, their markets will begin to appear more like those of the G-6 countries, and when this happens, growth will start to occur at a slower pace. Furthermore, in spite of this tremendous progress, in 2050 per capita income in China will likely be only around $30,000, roughly what it is today in the West.⁸ The divisions between the have and have-nots in the BRIC countries are stark, with millions of Indians, Chinese, Brazilians, and Russians excluded from the benefits of economic integration. Eventually, resource scarcities, demographic shifts, price fluctuations, and political strife may prevent some or all of these countries from enjoying the prosperous future experts once predicted for them. Of the four, Russia is probably most at risk. Russia’s economy is based largely on the sale of oil and is therefore subject to the vagaries of global demand and international crude prices. If the government does not diversify and invest in non-extractive industries, Russia may fall behind, leaving us with just “BIC.”⁹

Poverty & Inequality

Tremendous economic prosperity experienced in recent decades has not affected all people in the same way. Globalization has failed to pull the poorest out of poverty, while in other parts of the world it has enabled the development of a middle class. Disparities exist not only between countries but within them as well. The fact remains that a staggering 2.8 billion people live on less than two dollars a day and the richest 10% of the population accounts for 54% of total global income.¹⁰ High levels of income inequality are bad for growth and are associated with many of the negative side effects of globalization, including high infant mortality, poor education, and crumbling infrastructure.¹¹ The costs for basic commodities continue to fluctuate, making it increasingly difficult for the poorest of the poor to meet their daily needs. When citizens are starving or when they see their government keeping more than its fair share of national income, social stability can be threatened.

At the same time, we are witnessing the expansion of the global bourgeoisie. When countries plug into the international system, their citizens are often able to attain better jobs with better pay. To find these jobs, farmers move

Did You Know?

China’s economic boom has lifted 300 million people out of poverty.


Economic Integration  SEVEN REVOLUTIONS  14
from small towns and villages into bustling cities. Financial institutions also begin to extend credit to these individuals, previously ineligible for loan money, viewing their extra income as insurance against default. With time, the huge income gaps we see today may become relics of the past. This middle class, freed from the burdens of subsistence living, may push for greater civil liberties and start to demand accountability from elected officials. This burgeoning middle class could be the driving force behind the democratic movements of the future.

Discussion Questions

Use the questions below to structure a discussion on the promise and peril of economic integration. Sources to complement your consideration of these important issues are suggested.

1. An integrated global supply chain means that, as Nobel Laureate Milton Friedman once put it, “It is possible to produce a product anywhere, using resources from anywhere, by a company located anywhere, to be sold anywhere.” What benefits and costs are intrinsic in this system—the “just-in-time” supply chain—for countries, governments, and organizations? How do labor and the mobility of people (migration) fit into the logic of this globally integrated economic system? In such a system, what is the importance of traditional notions of state sovereignty? Of cultural borders?

2. What will a potential shift of the economic center of gravity from the traditional G-6 countries—United States, Japan, Germany, UK, France, and Italy—to the BRIC countries mean? Does it signal hope for a new wave of economic growth and new engines of regional prosperity to drive the global economy, or does it signal the fading importance of Europe and the United States? Will the rise of the BRIC countries signal the rise of middle classes within those countries or a further expansion of inequity in income distribution? How can governance challenges in each of the BRIC countries derail their economic growth? Resource challenges? Demography and population? The threat of conflict?

3. According to the World Bank, 2.8 billion people at the turn of the millennium—nearly 45 percent of the world’s population—live on less than two dollars a day. To what extent can global economic growth address this chasm—especially in the face of information technology and the

ability to quickly organize political and social movements? The rise of radical Islam, environmental and rural protectionist movements, and the “Bolivarian” movement in Venezuela led by Hugo Chavez are all examples of how perceived inequality on the global playing field can manifest in political movements. What is the long-term impact of such movements to the further integration of the world economy? How can the benefits of globalization be more widely distributed and the costs minimized? What specific role should the United States play in addressing global inequality? What specific role should other current global powers (the EU, Japan) and rising powers (China, India, Brazil) play?

4. As the EU continues to grow, it will encounter higher levels of competitiveness from other regions of the world. For the EU to continue to prosper, a reduction of trade barriers, a more liberal and competitive industry sector, and a more integrated internal market are key for stronger growth. How do you propose this change will take place? What sort of competition will the EU face with other trading blocs like the Eurasian Economic Community (EurAsEC) and the South African Development Community (SADC)?

Bibliographic Materials from CSIS

- Dr. Sidney Weintraub holds the Simon Chair in Political Economy (http://csis.org/program/simon-chair-political-economy).
- The Global Strategy Institute Video Interview Library (http://gsi.csis.org/videolibrary) has clips from an interview with Grant Aldonas, CSIS senior adviser and former under secretary for international trade, on globalization, the BRIC economies, and inequality.

Web Resources

- The Corporate Social Responsibility Newswire (http://www.csrwire.com/) is a reliable source to track increasingly visible corporate involvement in international affairs.

- The Economist Online (http://www.economist.com) is a premier online source for the analysis of world business and current affairs.

- The World Bank (http://www.worldbank.org/) works to eliminate poverty around the world by helping connect countries and their people to the benefits of globalization.

Further Reading


By 2025, over 40% of the population of India will be middle class.14

The GDP (Gross Domestic Product) of the 41 most heavily indebted poor countries (567 million people) is less than the wealth of the world’s 7 richest people combined.15

15% percent of the world’s population located in the high-income countries account for 56% percent of total consumption, while the poorest 40% living in low-income countries account for only 11% of consumption.16

The poorest 10% percent of the world’s people have only 1.6% of the income of the richest 10%, and the richest 1% receives as much income as the poorest 57%.17

Two-thirds of international trade is accounted for by just 500 corporations.18

In 1947 the average trade tariff on manufactured imports was 47%; by 1980 it was only 6%.19

Economic Integration Facts

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Canada and the United States share one of the world’s largest and most comprehensive trading relationships, which supports millions of jobs in each country. In 2008, bilateral trade in goods and services totaled $712 billion, with over $2 billion worth of goods and services crossing the border every day.20

Notes


17. Ibid.


19. Ibid.

Today, conflict is more likely to occur between warring factions on residential streets than between armies on battlefields. As before, many belligerents today still fight for power and/or wealth, but an increasing number are fighting purely for ideology. Acts of terrorism have become the major vehicle for this malcontent, especially for well-organized and well-funded extremist groups like al Qaeda. The attacks of September 11, 2001, and similar incidents in recent decades have shown that even small groups of terrorists can carry out sophisticated attacks that result in an incredible loss of life. The proliferation of nuclear and biological technologies only ups the ante for future incidents.

**Terrorism & Transnational Crime**

Over the past few decades the size and scope of terrorists’ abilities have become truly alarming. Terrorist organizations have evolved from scrappy bands of dissidents into well-organized groups with vast human and capital resources. This situation is forcing governments around the world to develop strategies to neutralize these groups where they operate while at the same time protecting their homelands. The United States has met some success in combating terrorist organizations, but this intervention resulted in the formation of “micro-actors,” individuals spurred by militant extremism. These individuals, or groups of individuals, operate in poorly organized cells and prefer to use the Internet to spread their message and plan attacks, making it difficult to detect them. Terrorism has also heightened tensions between sovereign nations. For instance, after the Mumbai terrorist attacks of 2008, India and Pakistan neared the brink of war after India accused Pakistan of harboring individuals who coordinated the attack.

To finance their illegal activity, terrorist organizations are becoming increasingly involved in transnational crime, especially drug trafficking. Regarding the war in Afghanistan, Dr. Rachel Ehrenfeld, director of the American Center for Democracy, has stated, “The huge revenues from the heroin trade fill the coffers of the terrorists and thwart any attempt to stabilize the region.” Over the last two decades, we have witnessed a surge in transnational crime, in large part because of the dissolution of Cold War alliances that helped keep criminal syndicates in check. Organized crime activity is not limited to the smuggling of illicit drugs, but includes the trafficking of arms, drugs, and human beings.

In addition to terrorism and transnational crime, the unequal distribution of globalization’s benefits has precipitated political upheavals and social unrest in countries across the world. This is a trend that could be aggravated by resource scarcities if food and water supplies become inadequate to meet the needs of growing populations. As the environmental security scholar Thomas Homer-Dixon asserts, resource stress “causes various forms of social dislocation—including widening gaps between rich and poor...weakening of states and deeper ethnic cleavages—that, in turn, make violence more likely.” Former U.S. Central Command Commander General Anthony Zinni describes resource-stressed environments as “Petri dishes for extremism and for terrorist networks.”

**Weapons of Mass Destruction**

According to President Obama, “In a strange turn of history, the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up.” International mechanisms established in recent decades have by and large kept the nuclear ambitions of superpowers at bay. However, the fall of the Soviet Union and the increasing prevalence and power of criminal networks have made it more likely that a single group or actor could obtain a weapon of mass destruction (WMD). The term WMD is used to describe any weapons technology (radiological, chemical, biological, or nuclear) that is capable of killing a large number of people. By and large it is believed that WMDs pose the greatest threat in the possession of belligerent states like North Korea and Iran. However, experts are warning that a more urgent threat would come from WMDs in the hands of non-state actors. Nuclear material and technical knowledge are exchanged on the black market, especially in post-Soviet countries, where WMD facilities are vulnerable. With the help of the United States, Russia and its neighbors have made strides in securing these sites and improving oversight of the nuclear industry, but there is no telling how much material has been traded over the years. The WMD threat comes not only from groups operating in the developing world, however, as recent biochemical attacks attest. The perpetrator of the anthrax attacks of 2001 was a U.S. government scientist, and the sarin gas attack on the Tokyo subway was committed by a religious group that enjoyed official government recognition. The ease with which these materials have become available, especially through online resources, is forcing governments to restrict their use. International governing bodies will need to find an acceptable paradigm that allows for the benign application of these technologies, as in power generation, while deterring the nefarious ones.

**Force Transformation**

In the face of these new asymmetric threats, militaries around the world will be forced to adapt to keep up with the new challenges posed by non-state actors. In 2008, the U.S. Army released a new field manual for stabilization operations in what signified a major shift in military strategy. In effect, the army was acknowledging that the enemy had changed and was unlikely to change back.
According to former Secretary of the Army Pete Geren, the armed forces must prepare for the full spectrum of military engagements in the coming years, meaning that the military will need to grow accustomed to modern, unconventional warfare, like that seen in Iraq and Afghanistan. Additionally, he argued, military leaders will need to put more emphasis on officer development and education to better prepare soldiers for modern-day threats. Today, a soldier capable of speaking the local language is often more valuable than one able to drive a tank. All the while, the military must maintain its technological edge. The proliferation of cheap but sophisticated military technologies available to enemy combatants is making this more difficult. The military will need to develop new technologies that are not only deadly but precise and adaptable to different theaters.

Discussion Questions

Use the questions below to structure a discussion on the peril of conflict and the promise of conflict resolution. Sources to complement your consideration of these important issues are suggested.

1. Asymmetrical violence (including terrorism) has historically accompanied eras of global economic expansion and rapid technological change. How might the technologies and movements of goods, people, and money that power globalization also inspire violence? What steps can be taken to mitigate reactionary movements to the forces of globalization? Is this violence nihilistic or simply “politics by other means”? How are economics likely to drive conflict in the future?

2. How would the global risk calculus of individuals, organizations, and governments shift if a weapon of mass destruction were detonated in a heavily populated city? The likelihood of such an event is high according to experts around the globe. Would such an event promote closer cooperation between countries in fighting the spread of WMDs or would it drive countries further apart and back within their sovereign borders?

3. How does fighting a war against an ambiguous, non-state foe alter existing relations betweens countries? What are the keys to transforming military and police forces to meet the challenges of guarding against the threats of today and tomorrow? How might judiciary systems and international organizations be reformed to meet these threats? How many civil liberties will citizens give up to increase their feelings of security? What actions carried out by the state on their behalf will they tolerate?

Bibliographic Materials from CSIS

• The CSIS International Security Program (http://csis.org/program/international-security-program) tracks the major security concerns the United States faces today and beyond, including strategy and regional security issues.
• View the reports of the Strategic Assessment Project, prepared by Anthony H. Cordesman, Senior Fellow and the Arleigh A. Burke Chair in Strategy at CSIS (http://csis.org/program/burke-chair-strategy). The reports summarize the global military balance in graphic and tabular form. They are divided by region and subregion, and cover the trends in conventional forces, nuclear forces, proliferation, military effort and spending, procurement and arms import activity, force modernization, and force quality.

• Visit the CSIS Transnational Threats Project (http://csis.org/program/transnational-threats-project) to learn more about the breadth, depth, and impact of transnational threats including crime, terrorism, information warfare, and WMD proliferation.

• The CSIS Homeland Security and Counterterrorism Program (http://csis.org/program/homeland-security-program) focuses on providing policy solutions to the U.S. government’s newest agency by considering in a broader context the challenges it faces. The program sponsors a number of simulation exercises to help prepare for a variety of possible contingencies.

• The CSIS Global Strategy Institute Video Interview Library (http://gsi.csis.org/videolibrary) contains interviews on conflict with Anthony Cordesman, the CSIS Burke Chair in Strategy, and Arnaud de Borchgrave, senior adviser and director of the CSIS Transnational Threats Project.

Web Resources

• The National Memorial Institute for the Prevention of Terrorism (http://www.mipt.org/), located in Oklahoma City, is dedicated to preventing terrorism and mitigating its effects. The institute is a repository of knowledge on all aspects of terrorism around the world.

• The Small Arms Survey (http://www.smallarmssurvey.org/) is an independent research project located at the Graduate Institute of International Studies, Geneva, Switzerland. Its reports and databases examine the role small arms play in destabilizing various regions and are a resource for governments, activists, and policymakers.

• The Human Security Report (http://www.humansecurityreport.info/) examines worldwide political violence. The report was produced by the Human Security Center at the University of British Columbia.

• The International Crisis Group (http://www.crisisgroup.org) is a nongovernmental organization that is dedicated to monitoring regions of instability throughout the world. The ICG provides resources and background information on all current and potential conflicts worldwide.

Further Reading


**Conflict Facts**

- During World War I, civilians made up fewer than 5% of all casualties. Today, 75% or more of those killed or wounded in wars are non-combatants.10
- About 35% of the energy of a nuclear explosion is released as heat. The temperature at the point of explosion (“ground zero”) may exceed 100 million degrees Centigrade (°C). This is about 10 times the temperature of the surface of the sun. At these temperatures, matter cannot exist in its normal solid, liquid, or gaseous state. Instead, atoms are stripped of all their electrons and converted to ionized plasma.16
- The U.S. military budget is almost as large as the rest of the world’s military budgets combined.17
- The Department of Energy estimates that only 4 kilograms of plutonium are needed to make an atomic bomb.18

**Notes**

We have crossed into a new period of governance—from the Westphalian nation-state system to a world with a powerful set of actors outside of traditional governments. The challenges of the previous revolutions will test our leaders as they seek innovative solutions. Strategic coalitions consisting of governments, corporations, NGOs, and academic institutions will be necessary in mounting effective responses and capitalizing on important opportunities.

Corporate Citizenship

According to Klaus Schwab, executive chair of the World Economic Forum, corporate citizenship "expresses the conviction that companies not only must be engaged with their stakeholders but are themselves stakeholders alongside governments and civil society." According to this philosophy, private companies must do more than simply provide goods and services to the public; they must serve the public good. And many private companies are well positioned to do so. The revenue of Royal Dutch Shell, in 2009, was higher than the GDP of the entire country of Pakistan. With such massive profits, consumers will look to the private sector to help solve many of the world's problems. In fact, according to the 2009 State of Corporate Citizenship in the United States Report, 74% of Americans have said "now more than ever, business must show leadership, courage and commitment in keeping corporate citizenship among the top business priorities for meeting the economic challenge." And it would seem that business leaders are in agreement. According to the Harvard Business Review, "when a well-run business applies its vast resources, expertise, and management talent to problems that it understands and in which it has a stake, it can have a greater impact on social good than any other institution or philanthropic organization." However, at the end of the day, many CEOs are more concerned with the bottom line than they are with shaping public discourse, and it is unlikely that private companies would be involved in this work if it proved unprofitable. The financial crisis is forcing businesses to reevaluate their practices, and in the end they may find that the most profitable strategy is also the most socially sustainable.

Civil Society

With the decentralization of capital, technology, and information, civil society organizations (CSOs) and nongovernmental organizations (NGOs) have become important actors, filling gaps in the provision of social services, encouraging participation in local and national politics, and connecting people, resources, and ideas across the world. All of the other six revolutions discussed in this toolkit will affect civil society the world over, some in a negative way, some positive. For instance, communication technology may encourage individuals to disengage from formal politics. Also, immigration may fundamentally alter the cultural and religious makeup of political constituencies and force politicians to alter their platforms. Some governments, confronted by terrorist threats, may implement new security measures that infringe on civil liberties, while other governments may play a smaller role and encourage the professionalization of the “third sector” of nonprofit organizations. NGOs are already playing an important role around the world—according to the Union of International Associations there are more than 60,000 international NGOs in existence—but the role they will play in the future depends upon the expectations private citizens have for their governments. These expectations differ starkly in developed and developing countries. In failed states like Somalia, where neither the government nor civil society organizations can provide for citizens, people have come to rely on international aid organizations for their most basic needs. Development organizations have been active in these places for years working to empower civil society organizations, but building a truly robust civil society is a decades-long process.

Corruption

Corruption erodes public confidence in governmental institutions and encourages individuals to act outside their purview. According to Huguette Labelle, chair of Transparency International, "the continuing high levels of corruption and poverty plaguing many of the world's societies amount to an ongoing humanitarian disaster." Corruption, including bribery, fraud, and extortion, in low-income societies keeps the poor in poverty by dramatically increasing the costs of providing them with public services. It is estimated that unchecked levels of corruption would add 50 billion dollars to the cost of achieving the Millennium Development Goals for water and sanitation alone, equivalent to half of what is paid in foreign assistance worldwide in an entire year. Corruption does not affect just the developing world, however; it causes excessive waste even in more advanced countries. For example, notoriously bad corruption has created stark income inequalities in Russia. There, corrupt officials siphon $120 billion dollars from the federal budget annually; in 2008, that number represented almost a third of government spending for the entire year.

Megacommunities

Dynamic, innovative, and strategic partnerships between governments, civil society, the private sector, and international institutions will be necessary to address the challenges highlighted in the other revolutions. National governments are no longer the uncontested actors, nor do traditional international governing institutions hold the clout they once did. Nation-states have struggled to adapt to sweeping changes but have been slow to reformulate their roles and responsibilities. Likewise, if organizations such as the UN and NATO are unable to change, they may be remembered in the future as nothing more than fixtures of the Cold War era. Recent pledges to expand the resources of the International Monetary Fund (IMF) may hint at an expanded role for that organization, but it may operate with less control by Western countries. Where these organizations have failed, new groups and partnerships...
have stepped in. Private companies, civil society organizations, and international collaborations have emerged as major players on a host of economic, social, political, and cultural issues. The roles of the private sector and civil society have already been discussed, but fledging international partnerships, like the Group of Eight and, perhaps more importantly, the Group of Twenty should not be overlooked. In 2009, especially, the G-8 and G-20 meetings were followed with great anticipation, as they were seen as the most effective venues to address the international financial crisis.

The problems we face today result from our interdependence, so it is not illogical to assume that we need a collaborative and integrated solution. We will also need leaders with the wherewithal to say that our current mindset is flawed. The pressures of quarterly profit statements, election cycles, and annual reports currently prevent leaders from thinking strategically and long-term. The effective leader will jettison vertical integration, information hoarding, and dogma in favor of optimization, recalibration, and negotiation. In an increasingly integrated world, seeing the big picture requires a daunting breadth and depth of knowledge. Those leaders able to bridge these gaps and create a strategic vision will enable the innovative partnerships necessary to invent a better future.

Discussion Questions

Use the questions below to structure a discussion on the promise and peril of challenges in governance. Sources to complement your consideration of these important issues are suggested.

1. We live in a world in which 13 of the top 50 economies are companies, not countries. How does this change the responsibility companies have for providing for social needs and addressing big-ticket challenges of the future? How can companies ensure their own future prosperity by beginning to engage looming issues of concern—from energy needs to public health to income inequity?

2. If we have truly crossed the bridge from the Westphalian nation-state model, then what is the next step in the evolution of our societies? Will governments around the world be overwhelmed by this new environment? Will they adapt to meet the constellation of new challenges and opportunities? Will authority become increasingly decentralized? What importance does leadership play in this new system and how can it help guide countries, corporations, organizations, and institutions to necessary reform?

3. Is the proliferation of nongovernmental organizations the result of an incapacity on the part of governments? Or, are NGOs an innovation in human social organization and an important step forward for addressing global and local challenges? How can NGOs and governments work together to complement one another? How should the private sector involve itself in such coalitions?

Bibliographic Materials from CSIS

- The CSIS Hills Program on Governance (http://csis.org/program/hills-program-governance) focuses on the need for multinational companies and governments to work jointly to promote good governance, especially in emerging markets. Its central task is to develop an actionable agenda that promotes good governance at the intersection of the private and public sectors through dialogue and training at the mid-career and university levels.

- The CSIS Global Strategy Institute Video Library (http://gsi.csis.org/videolibrary) contains clips on governance from an interview with Norm Augustine, former chair and CEO of Lock- heed Martin Corporation.

Web Resources

- The United Nations (www.un.org), consisting of 192 countries, works to maintain international peace and security, to develop friendly relations among nations, to mediate interstate disputes, and to promote respect for human rights.

- The Center for Public Leadership (http://content.ksg.harvard.edu/leadership/) at Harvard University is dedicated to leadership education and research. It provides research, profiles of role models, and public opinion data on leadership.

- Based at the London School of Economics, the Centre for the Study of Global Governance (http://www.lse.ac.uk/Depts/global/) works to heighten awareness of global issues by promoting interaction between academics, policymakers, journalists, and activists and by proposing policy solutions.

Further Reading


Governance Facts

- According to a survey in 2005, 8 in 10 respondents would respect a company more if it formed partnerships with NGOs or national governments.  
- Americans 18-25 years old are significantly more likely than older Americans to consider a company’s citizenship practices when making purchasing, employment, and investment decisions. 
- Nine out of 10 surveyed CEOs feel that partnerships between business, government, and civil society must play either a major role or some role in addressing key development challenges facing the world today. 
- A recent report from the World Economic Forum finds that the mainstream financial community places little emphasis on social, environmental, and ethical issues in its investment decisions. 
- Somalia, Afghanistan, and Myanmar bottom out Transparency International’s 2009 Corruption Perceptions Index with the three highest levels of perceived corruption. 
- Thirty-three new sovereign countries have been created since 1990, largely due to the dissolution of the USSR and Yugoslavia. Other separatist states, like South Ossetia and Abkhazia, have declared independence, though they are largely unrecognized by the international community. 
- 2009 marked the fourth year in a row that the number of electoral democracies in the world declined. 
- Nearly 500 million people live in states considered to be fragile—in other words, states unable or unwilling to assure the provision of security and basic services to significant portions of their populations. 
- Recent research suggests that, around the world, there are 12 million stateless people—that is, people who do not enjoy citizenship with any country. 
- Well over half of adult American men and women believe the United States would be better off if there were more women in leadership positions. 
- More than 9 out of 10 Americans believe that their political leaders spend too much time attacking members of the other party.

Notes