U.S. Development Policy in an Aging World

New Challenges and New Priorities for a New Demographic Era

A Research Report from the Project on U.S. Leadership in Development

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INTRODUCTION

In October 2011, the United Nations announced that the global population had passed the seven-billion mark, triggering widespread alarm in the development community that demographic trends were pushing the developing world toward a future of growing resource scarcity and population-driven instability. This alarm is largely misplaced. Global population growth has in fact been decelerating for decades and, according to the latest UN projections, is on track to fall to near zero by the middle of the century.[1] (See figure 1.) The greatest demographic challenge facing most of the developing world today is no longer overcoming the obstacles to economic growth created by high birthrates and rapid population growth, but leveraging the economic opportunities created by falling birthrates and slowing population growth.

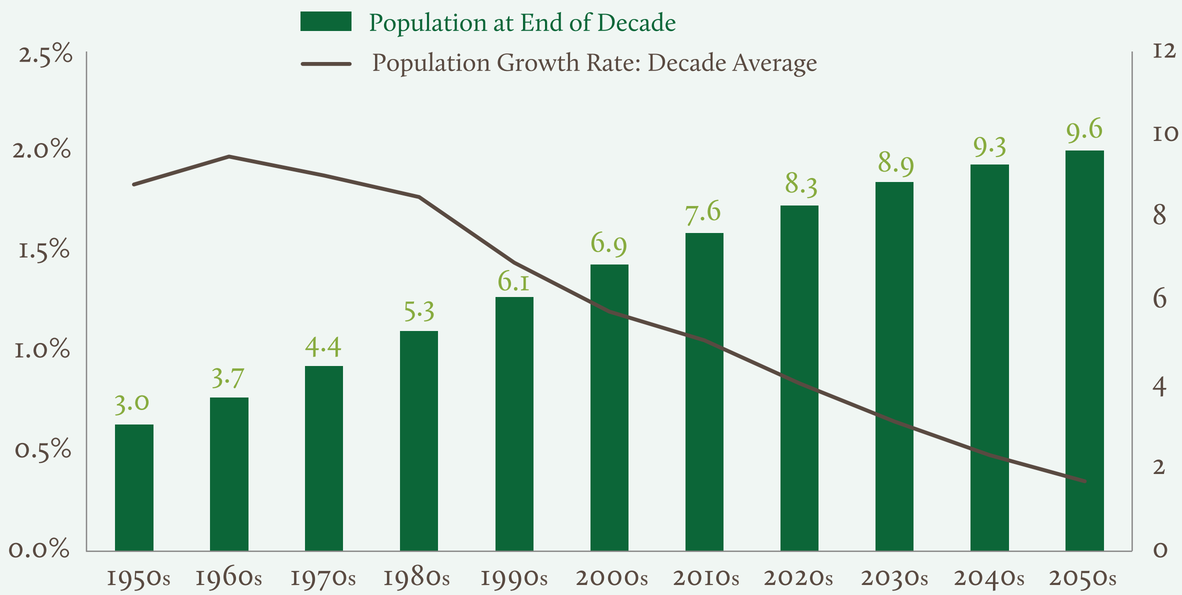
Like the developed world before it, the developing world has now entered the "demographic transition"—the shift from high fertility and high mortality to low fertility and low mortality that accompanies development and modernization. As this transition unfolds, population growth rates slow and median ages rise. Emerging markets that most Americans still associate with large families, large youth bulges, and large labor surpluses will be utterly transformed. By the middle of the century, Bangladesh, Indonesia, and Mexico will all have higher median ages than the United States—and the median ages of Brazil, China, and Iran will be much higher. (See table 1.) By then these countries, along with dozens of others throughout the developing world, will not only have rapidly aging populations, but also stagnant or even contracting ones.

Just a few decades ago, the global population outlook was entirely different. As the developing world's demographic transition first got under way in the 1950s and 1960s, dramatic declines in infant and child mortality rates triggered an unprecedented acceleration in global population growth—and fears that a teeming humanity would soon be falling off the edges of all seven continents. At the time, most development economists agreed that the population explosion threatened to retard development and leave countries mired in poverty. Understandably, much of U.S. development policy came to focus, directly or indirectly, on reducing birthrates and slowing population growth.

Yet just as concern about the "population bomb" was peaking, something happened that caught most development economists by surprise. Fertility rates in the developing world began to fall steeply,

1. Unless otherwise noted, all demographic data in this report come from *World Population Prospects: The 2010 Revision* (New York: UN Population Division, 2011). Population projections refer to the UN's "medium variant" projection. Regional groupings of countries are CSIS-defined and do not necessarily correspond to the UN's groupings. See Appendix 2 for a list of the countries in each grouping.

Figure 1. Global Population in Billions and Global Population Growth Rate, 1950s–2050s



Source: *World Population Prospects: The 2010 Revision* (New York: UN Population Division, 2011).

first in East Asia beginning in the 1970s, then in a growing number of other regions. Fertility rates are now well beneath the 2.1 replacement rate needed to maintain a stable population in all of East Asia, with the single exception of Mongolia. They are near, at, or beneath the replacement rate in almost every major economy in Latin America. And they are falling rapidly in South Asia and much of the Greater Middle East. All told, two-fifths of the developing world's population now live in countries with below-replacement fertility. (See figure 2.) Put another way, two-fifths live in countries that have a lower fertility rate than the United States.

There has been considerable debate in the development community about the causes of the developing world's fertility decline. The traditional view stresses the centrality of family planning in preventing unwanted births. Most empirical studies, however, have failed to find a direct causal link between the availability of family planning services and the decline in developing-world fertility.[2] Instead, they find that the decline is attributable to the fact that people now want fewer children than they did in the past. The key factors behind this attitudinal shift appear to be improvements in infant and child survival rates, which mean that fewer births are needed to achieve any desired family size, and rising female educational attainment, which tends to reduce desired family size.

However you interpret the evidence, the debate is increasingly moot. To be sure, chronically high fertility remains a serious obstacle to development in most of sub-Saharan Africa, as well as in a scattering of other "least developed" countries, almost all in the Muslim world. But chronically high fertility is no longer an obstacle to development in the rest of the developing world. Nor is it the reason that populations in the rest of the developing world are still growing. Much of the ongoing growth in the global population is attributable to countries like India, Bangladesh, and Mexico, where fertility rates, though still above the replacement level, are falling rapidly. Much is also attributable to "demographic momentum" in countries like Brazil, Indonesia, and Iran, where fertility rates are already at or beneath

2. See, for example, Matthew Connelly, *Fatal Misconception: The Struggle to Control World Population* (Cambridge, MA: Harvard University Press, 2008); Lant H. Pritchett, "Desired Fertility and the Impact of Population Policies," *Population and Development Review* 20, no. 1 (March 1994); and Harry M. Raulet, "Family Planning and Population Control in Developing Countries," *Demography* 7, no. 2 (May 1970).

Table 1. Median Age of the Population, 1975-2050

	1975	2010	2030	2050
Nigeria	18.3	18.5	19.8	23.1
South Africa	18.9	24.9	29.1	33.5
Pakistan	18.4	21.7	28.0	34.7
Egypt	18.3	24.4	30.5	36.9
India	19.7	25.1	31.2	37.2
United States	28.8	36.9	39.1	40.0
Bangladesh	17.2	24.2	32.7	41.3
Indonesia	18.5	27.8	35.1	41.6

	1975	2010	2030	2050
Mexico	16.8	26.6	34.2	41.8
Turkey	19.1	28.3	35.9	42.3
Russia	30.8	37.9	43.3	43.1
Brazil	19.5	29.1	37.4	44.9
Vietnam	18.3	28.2	38.5	45.8
Iran	18.1	27.1	39.5	47.2
China	20.7	34.5	42.5	48.7
South Korea	20.0	37.9	47.0	51.8

Source: *World Population Prospects: The 2010 Revision.*

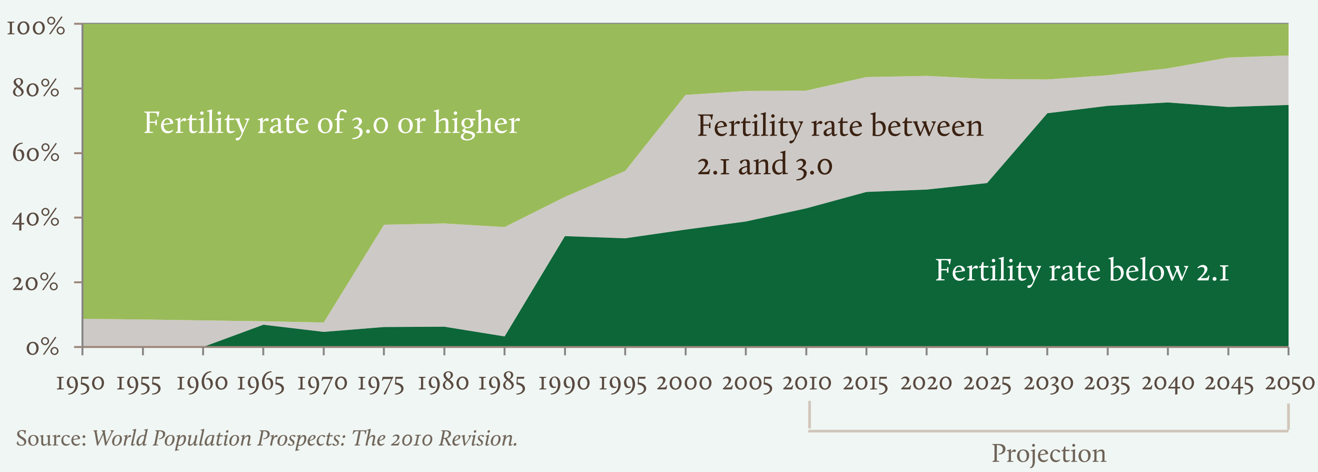
the replacement level. This momentum is a legacy of the high fertility rates in these countries a generation ago, and it will eventually dissipate.

Over time, the decline in developing-world fertility has opened up a window of opportunity for economic and social development known as the "demographic dividend." As fertility declines, the child dependency burden falls and the share of the population in the working years rises. All other things being equal, this shift in the age structure of the population tends to boost the growth rate in living standards. In addition, the shift may trigger a series of behavioral and policy responses that further accelerate living-standard growth, including increased labor-force participation, higher savings rates, and greater investment in human capital. This dynamic has been a driving force behind the meteoric rise of emerging East Asia over the past few decades, and it is now helping to improve economic growth prospects in other regions of the developing world as well.

As the demographic transition progresses, many of the traditional obstacles to successful development are beginning to recede in large parts of the developing world. Yet at the same time, developing countries find themselves encountering new hurdles that must be surmounted if they are to prosper in the new demographic era. There are three broad challenges that the demographic transition poses for the developing world—and by extension, for U.S. development policy:

- The first challenge is to leverage the demographic dividend created by falling fertility. The favorable demographics that most of the developing world

Figure 2. Percent Distribution of Developing-World Population by Fertility Level, 1950-2050



Source: *World Population Prospects: The 2010 Revision.*

now enjoy open up a window of opportunity for economic and social development, but they do not guarantee success. Without sound macroeconomic management, pro-growth business and labor-market policies, good governance, and large-scale investments in human capital, this one-time opportunity to boost society's income and wealth may be squandered. To date, only the countries of emerging East Asia have been fully successful in leveraging their demographic dividends.

- The second challenge is to mitigate the social and economic stresses that can be triggered by development. These stresses include the erosion of traditional social and cultural norms, urbanization, growing income inequality, and environmental degradation. Most of the stresses tend to peak midway through the demographic transition and midway through the development process. Paradoxically, although rapid population growth will no longer be a significant driver of instability in most of the developing world, rapid development may be.

- The third challenge is to prepare for the age waves that loom in the future of most emerging markets. Although falling fertility's economic impact is initially positive, it ultimately leads to rapid population aging. While today's developed countries became affluent societies before they became aging societies, today's emerging markets will be aging while they are still in the midst of development and modernization. Unless they put in place adequate government and market substitutes for the informal family support networks on which most elders still depend, some may face a humanitarian aging crisis.

The United States has a vital national interest in helping emerging markets meet these challenges. To do so effectively, it will have to reevaluate its development priorities. Although traditional types of development aid to low-income countries will remain important, the strategic focus of development policy should shift to assisting middle-income countries leverage their demographic dividends, manage the stresses of development, and prepare for the eventual aging of their populations.

This new focus need not require the commitment of substantial new budgetary resources. What it will require are extensive but relatively inexpensive investments in "capacity building," more effective use of development finance, better leveraging of public-private partnerships, and constructive trade and immigration policies. Above all, what it will require is a longer-term perspective than the development community is accustomed to take. The progression of the demographic transition—and the nature and timing of the development challenges that it poses—are highly predictable. It is not enough for the United States to help developing countries meet today's challenges. It must also help them to prepare for tomorrow's.

Much is at stake. The failure of rising middle-income countries to navigate the development process successfully could have far greater economic and geopolitical consequences than the failure of low-income countries to take the initial steps on the journey toward development. The development process does not end when countries cross the arbitrary threshold from low-income to middle-income status. Until they are fully developed and fully integrated into the global economy and liberal world order, there will be an important role for U.S. development policy to play.

The rest of this report further explores the implications of the new demographic realities for development prospects and development policy. The first chapter describes the relationship between demography and development, and especially the dynamics of the demographic dividend. The second chapter takes a closer look at the major economic and social challenges that countries must overcome as they progress through the demographic transition. The third chapter identifies some broad lessons for U.S. development policy. Along the way, the authors draw on the many insights they gained from a CSIS roundtable that brought together a dozen prominent demographers, economists, social protection experts, and development community representatives in June 2012 for a three-quarter day discussion of the issues investigated in this report.[3]

3. See Appendix 1 for a list of the participants in the CSIS Roundtable on Demography and Development.

CHAPTER 1
The Promise of the Demographic Dividend

Demography has profoundly shaped development prospects in recent decades and will continue to shape them in decades to come. The relationship between population trends and economic growth in the developing world is best understood by examining the course of its 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 societies. (See table 2.) This transition is both a consequence and a cause of economic and social development, and it appears to be irreversible.

In its early stages, the demographic transition tends to lean against economic growth. Since mortality rates, and especially those for infants and children, decline steeply at the outset of the transition, but fertility rates only decline after a lag, countries initially experience large youth bulges and rapid population growth. In its late stages, the transition also tends to lean against economic growth, as the elderly share of the population increases and the old-age dependency burden rises. Midway through the transition, however, countries enjoy a long period lasting several decades in which demographic trends are generally favorable to economic and social development.

Table 2. Total Fertility Rate and Life Expectancy at Birth, 1950-2010

	TOTAL FERTILITY RATE				LIFE EXPECTANCY AT BIRTH			
	1950-55	1970-75	1990-95	2005-10	1950-55	1970-75	1990-95	2005-10
East Asia	6.0	4.7	2.0	1.6	44.9	64.5	70.1	72.9
Eastern Europe	2.9	2.1	1.6	1.4	64.1	69.2	67.7	68.6
Greater Middle East	6.6	6.2	4.6	3.2	43.4	53.9	63.6	68.0
Latin America	5.9	5.1	3.1	2.3	52.0	61.2	69.1	73.6
South Asia	6.0	5.5	3.6	2.6	39.9	50.9	61.0	66.1
Sub-Saharan Africa	6.5	6.7	6.1	5.1	37.3	45.6	49.3	52.7

Source: *World Population Prospects: The 2010 Revision.*

When the developing world's demographic transition first got under way in the early postwar decades, the initial decline in mortality rates triggered a spectacular acceleration in global population growth. From 1950 to 1975, the world's population grew at an average annual rate of roughly 2 percent, faster than it had ever grown for so long at any time in recorded history. Economically, the demographic transition seemed to be pushing the developing world toward a Malthusian resource crisis—or at least so warned Paul Ehrlich and David Brower in their 1968 bestseller, *The Population Bomb*, and the Club of Rome in its 1972 report, *The Limits to Growth.*[4] Meanwhile, the large youth bulges that the transition spawned became a driving force behind social and political upheaval, from China's Cultural Revolution starting in the late 1960s to the Muslim world's radical Islamist movement starting in the late 1970s.

Although the initial impact of the demographic transition may have been negative, in most of the developing world the transition has by now entered a new phase in which the potential economic, social, and political effects are increasingly positive. Since 1975, the average fertility rate in the developing world has dropped from 5.1 to 2.7, the rate of population growth has slowed from 2.0 to 1.2 percent per year, and the median age has risen from 20 to 27. Roughly two-fifths of the developing world's population now live in countries where the fertility rate is at or beneath the 2.1 replacement level. Over time, as population growth rates have slowed and youth bulges have matured into working-age bulges, the demographic transition has become a driving force behind the rise of some of the developing world's most successful emerging markets.

To be sure, there is some debate about the relationship between population growth and development. The dominant view is that a high rate of population growth impedes development, because it requires poor countries to spend massively on "capital broadening" investment simply to provide each new worker with the same old tools. Conversely, a low rate of population growth spurs development by allowing poor countries to spend more on "capital deepening" investment, which provides workers with better tools, and thus boosts productivity and living-standard growth. Some renowned economists, however, have begged to differ. Ester Boserup argued that large and growing populations foster efficiencies of scale and stimulate innovation in technology and economic organization. John Maynard Keynes worried that slow population growth may be a problem because it weakens incentives for investors to spend, and thus may push economies into "secular stagnation."[5]

There is no debate, however, about the relationship between age structure and development. As countries enter the second stage of the demographic transition, falling birthrates trigger two demographic shifts that, at least potentially, can have a strongly positive impact on economic growth and social and political stability.

The first shift is the disappearance of large youth bulges. Throughout history, people have observed that young men are responsible for most of the world's mayhem. Since the mid-1990s, a substantial body of research has confirmed that there is a close correlation between the size of a society's youth bulge, which is usually defined as the ratio of youth aged 15 to 24 to the entire adult population aged 15 and over, and the incidence of conflict and instability, especially civil unrest and state failure.[6] The good news is that youth bulges have peaked in most regions of the developing

4. 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).
5. See the discussion in Geoffrey McNicoll, "Consequences of Rapid Population Growth: An Overview and Assessment," *Population and Development Review* 10, no. 2 (June 1984); and Richard Jackson and Neil Howe, *The Graying of the Great Powers: Demography and Geopolitics in the 21st Century* (Washington, DC: Center for Strategic and International Studies, 2008), 90-92 and 97-98.
6. See, for example, Daniel C. Esty et al., *State Failure Task Force Report: Phase II Findings* (McLean, VA: Science Applications International Corporation, 1998); Richard P. Cincotta, Robert Engelman, and Daniele Anastasion, *The Security Demographic: Population and Civil Conflict after the Cold War* (Washington, DC: Population Action International, 2003); Henrik Urdal, "A Clash of Generations? Youth Bulges and Political Violence," *International Studies Quarterly* 50, no. 3 (2006); and Elizabeth Leahy et al., *The Shape of Things to Come: Why Age Structure Matters to a Safer, More Equitable World* (Washington, DC: Population Action International, 2007).

world and are projected to decline steeply over the next few decades. (See table 3.) As the overall age structure of societies shifts upward, the hope is that they will not only become more stable, but also more focused on building institutions that facilitate the creation and protection of wealth.

Table 3. Youth Bulge (Aged 15-24), as a Percent of the Adult Population (Aged 15 & Over), 1975-2050

	1975	1990	2010	2030	2050
East Asia	32%	30%	21%	13%	11%
Eastern Europe	24%	18%	17%	14%	12%
Greater Middle East	34%	33%	30%	23%	18%
Latin America	33%	31%	25%	19%	15%
South Asia	33%	32%	27%	21%	16%
Sub-Saharan Africa	34%	35%	35%	32%	27%

Source: *World Population Prospects: The 2010 Revision.*

The second, and economically more important, shift is the decline in dependency burdens. To measure the size of a country's dependency burden, demographers look at its "total dependency ratio"—that is, the ratio of children and elderly to working-age adults. When the demographic transition begins, the explosive growth in the number of children pushes up the total dependency ratio and puts downward pressure on living standards. But once fertility falls, the total dependency ratio begins to decline, which tends to boost living standards. (See table 4.) Another way to understand the shift is to look at the share of a country's population that is in the traditional working years. As the dependency ratio declines during the second phase of the demographic transition, the share of the population in the working years rises, often dramatically. (See table 5.) In effect, the ratio of producers to consumers goes up. All other things being equal, this alone should facilitate development.

Beyond this simple arithmetic, declining dependency burdens can also alter economic behavior in ways that further accelerate the pace of living-standard growth. Labor-force participation rates may increase, because fewer children free up adult time, and especially the time of women, for participation in the market economy. Over time, savings rates may increase as well as more of the working-age population ages into the high-saving middle years. Declining family size, together with

Table 4. Number of Children (Aged 0-19) and Elderly (Aged 65 & Over) Per 100 Working-Age Adults (Aged 20-64), 1975-2050

	1975	1990	2010	2030	2050
East Asia	113	80	55	59	79
Eastern Europe	74	68	53	69	83
Greater Middle East	136	127	89	73	71
Latin America	128	106	78	69	74
South Asia	124	109	81	66	66
Sub-Saharan Africa	137	143	130	108	89

Source: *World Population Prospects: The 2010 Revision.*

rising life expectancy, also increases incentives to invest more in the "quality" of children, and thus of the future workforce. The overall dynamic is called the demographic dividend, and it opens up a window of opportunity for economic and social development.

The dynamic is not merely theoretical. Development economists who have studied the demographic transition agree that it has given a powerful boost to economic growth in emerging East Asia, first underpinning the stunning rise of the Tigers, and then, more recently, of China. Since 1975, the total dependency ratio of children and elderly to working-age adults in emerging East Asia has fallen from 113 to 55, the largest drop of any region in the world. Meanwhile, the share of the population in the working years has risen from 47 to 64 percent. Several studies have concluded that the shift in the age structure of East Asia's population accounts for between one-quarter and two-fifths of the growth in the region's living standards since the mid-1970s.[7]

It is important to recognize that the countries of the developing world are not all progressing in tandem through the demographic transition. The transition's pace and timing vary tremendously, and in some parts of the developing world it has stalled in its early stages. In sub-Saharan Africa, burdened by the world's highest fertility rates and ravaged by AIDS, the average youth bulge is 35 percent, more than twice the developed-world average, and is projected to remain at elevated levels for decades to come. The transition has also failed to gain traction in parts of the Greater Middle East, including such chronically unstable countries as Afghanistan, Iraq, Somalia, Sudan, and Yemen. Here, the demographic window of opportunity for rapid development still lies over the horizon—and may not materialize at all unless fertility rates fall. Meanwhile, the countries of emerging East Asia, where fertility rates fell sooner and farther than elsewhere, are already reaching the tipping point where rapidly aging populations will begin to lean against economic growth. Here, the demographic window of opportunity for rapid development is already closing.

Still, most of the developing world now finds itself traversing a demographic sweet spot that is projected to last for several decades. In Latin America, the total dependency ratio is not due to bottom out and begin rising again until the 2030s. In South Asia and the Greater Middle East, it is not due to bottom out until the 2040s. Here, successful development will depend crucially on how effective countries are in realizing the promise of their demographic dividends. ▶

Table 5. Working-Age Population (Aged 20-64), as a Percent of the Total Population, 1975-2050

	1975	1990	2010	2030	2050
East Asia	47%	55%	64%	63%	56%
Eastern Europe	58%	60%	65%	59%	55%
Greater Middle East	42%	44%	53%	58%	58%
Latin America	44%	49%	56%	59%	58%
South Asia	45%	48%	55%	60%	60%
Sub-Saharan Africa	42%	41%	44%	48%	53%

Source: *World Population Prospects: The 2010 Revision.*

7. See, for example, David E. Bloom and Jeffrey Williamson, "Demographic Transitions and Economic Miracles in Emerging Asia," *World Bank Economic Review* 12, no. 3 (September 1998); David E. Bloom, David Canning, and Pia N. Malaney, "Demographic Change and Economic Growth in Asia," CID Working Paper no. 015 (Cambridge, MA: Center for International Development at Harvard University, May 1999); and Jeffrey Williamson, "Demographic Change, Economic Growth, and Inequality," in *Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World*, eds. Nancy Birdsall, Allen C. Kelley, and Steven Sinding (New York: Oxford University Press, 2001).

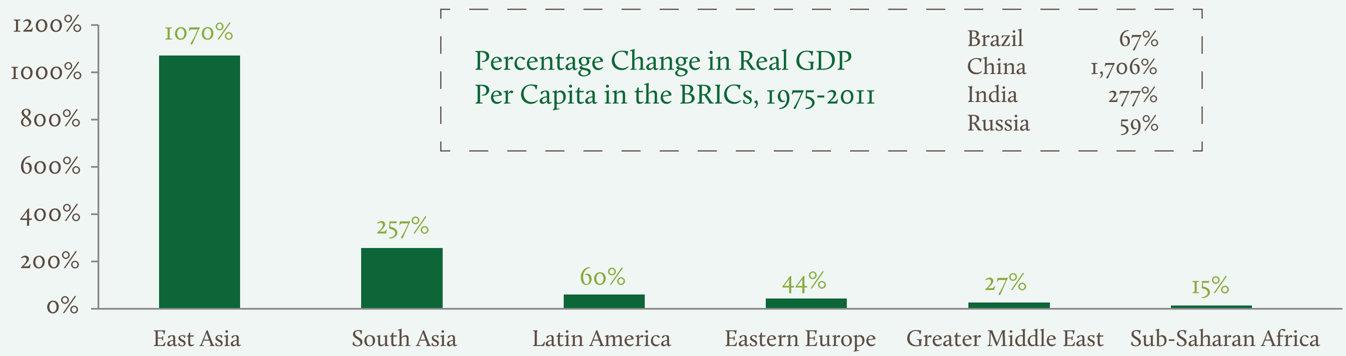
CHAPTER 2
New Challenges for the Developing World

While most of the developing world is now enjoying a period of favorable demographics, this does not mean that most of the developing world is on a glide path to prosperity. There are enormous differences across today's emerging markets in the size and capacity of the public sector, the level of human capital and market development, and the degree of social and political cohesiveness. This broader environment will play a critical role in determining how effective different countries are in leveraging their demographic dividends and boosting living-standard growth while they are still young—or in adjusting to higher old-age dependency burdens as they grow old. This broader environment will also help to determine how successfully they manage the social and economic stresses unleashed by rapid development and demographic change.

The importance of the overall economic, social, and political environment is already evident in the vast differences in economic performance across the developing world. If demography were all that mattered, most emerging markets would be growing as fast, or nearly as fast, as those in East Asia. Although East Asia led the way through the demographic transition, total dependency ratios have also been falling and the working-age share of the population has also been rising since the mid-1970s in every region of the developing world except sub-Saharan Africa. Yet no other region has managed to achieve sustained growth rates in living standards that even approach East Asia's. Since 1975, real GDP per capita in emerging East Asia has risen by a staggering 1,070 percent. In South Asia, it has risen by 257 percent, in Latin America by 60 percent, and in the Greater Middle East by just 27 percent. (See figure 3.)

Clearly, many countries are failing to meet the challenge of leveraging their demographic dividends. The reality is that favorable demographics only help development to the extent that societies are capable of mobilizing economic resources and allocating them to productive activities. The concrete responses that allow societies to leverage their demographic dividends—increasing their labor supply, saving and investing more of their income, and developing their human capital—are heavily dependent on the overall economic and policy environment. More jobs require sound macroeconomic and regulatory regimes that encourage businesses to invest and flexible labor markets that allow them to hire and fire. If

Figure 3. Cumulative Percentage Change in Real GDP Per Capita (in 2005 PPP Dollars), 1975-2011



Source: World Development Indicators 2012, The World Bank, 2012, http://databank.worldbank.org; Angus Maddison, *Historical Statistics of the World Economy: 1–2008 A.D.* (Groningen: Groningen Growth and Development Center, 2010); and *World Population Prospects: The 2010 Revision.*

families are to save more, they must have confidence in the transparency of financial markets and the integrity of government institutions. If they are to invest more in the education of their children, they must have some assurance that this investment will generate economic and social returns over time.

When these conditions are absent, the demographic dividend will at best be squandered. At worst, societies will not only miss a once-in-their-history opportunity to boost economic growth, but may even experience negative economic and social consequences. Unless there are sufficient employment opportunities for the surging number of working-age adults, unemployment will rise as countries move through the demographic transition—and along with unemployment, popular resentment and unrest will grow. In parts of the Greater Middle East, the failure to create jobs has helped to trigger social revolutions and played a role in fomenting religious extremism. In parts of Latin America, it has led to massive outmigration.

East Asia's emerging markets were able to leverage their demographic dividends so spectacularly because they got everything, or nearly everything, right. To varying degrees, they have all benefited from sound macroeconomic management, pro-growth business and labor-market regulation, good governance, and the rule of law. Crucially, governments pursued export-led growth strategies that facilitated the movement of unskilled labor from unproductive rural sectors into basic manufacturing. At the same time, they made or encouraged massive investments in infrastructure, R&D, and, above all, human capital that allowed their economies to move gradually up the global value-added scale. When South Korea's demographic transition got under way in the 1950s and 1960s, it was still a predominantly agrarian society of largely illiterate peasant farmers. Today, it is a high-income country with the highest secondary-school and university graduation rates in the OECD.[8] Quite simply, many of the conditions that explain East Asia's success do not yet exist in large parts of the developing world.

Consider a few instructive examples, starting with Latin America. Although macroeconomic management has improved dramatically since the "lost decade" of the 1980s, deep-rooted structural impediments continue to hobble growth in much of the region. These include burdensome business regulations, punitive tax policies, and two-tiered

8. *OECD Education at a Glance 2012* (Paris: OECD, 2012).

labor markets, with privileged and overprotected formal sectors and large and low-wage informal sectors. The most important factor damaging Latin America's long-term growth prospects, however, may be its underinvestment—and missinvestment—in human capital. Most Latin American governments spend far more per student on university education, which tends to benefit a privileged elite, than they do on secondary education for the masses, which development economists stress is essential if middle-income countries are to ensure their international competitiveness.[9] In Mexico, the per-student ratio of government spending on university education to secondary education is 2.8 to 1. In South Korea, the government's priorities are precisely the opposite: It spends 1.8 times more per student on secondary education than on university education.[10] The tilt in Latin America's educational budgets not only hurts its competitiveness, but also helps to lock in some of the highest levels of income inequality in the world.

Now consider India. Clearly, the country enjoys some enviable advantages, including a highly educated English-speaking middle class, an entrepreneurial culture, and deep-rooted democratic institutions. Yet India also labors under some serious handicaps that threaten to impede its development. Its educated middle class notwithstanding, India suffers from an enormous human capital deficit. Just 8 percent of all adults have completed their secondary education—and 37 percent are illiterate, compared with 6 percent in China.[11] India's human capital deficit is part of a broader deficiency: the state's failure to provide the basic public goods that a rising middle-income country requires. And where the state is not needed, it often gets in the way by overprotecting the labor market and heaping excessive regulation on business. Perhaps most importantly, India's "leapfrog" development strategy, which has largely bypassed basic manufacturing in favor of high-tech industry, provides no route for shifting its unskilled labor into the growth sectors of its economy. In effect, at least half of India's labor force has been shut out of the country's development.

Finally, consider Russia. Its living standard has risen rapidly over the past decade, but only because it was riding high on a flood of commodity profits. Russia could have taken advantage of the boom years to begin building a diversified and globally competitive economy. Instead, it finds itself even more dependent on natural resources today than it was a decade ago. One problem with this dependence is that commodity prices can go down as well as up, as Russia learned painfully during the global economic crisis, in which it fared much worse than most emerging markets. But there is also a more fundamental problem—namely, that economies based on resource extraction often devote considerably more energy to rent seeking than to wealth creation. This dynamic is sometimes called the "resource curse," and it has left Russia with huge deficits in public infrastructure, business technology, and human capital. The same curse also plagues many resource-rich countries in other parts of the developing world, especially the Greater Middle East and sub-Saharan Africa.

Along with leveraging their demographic dividends, emerging markets face another challenge as they move through the demographic transition: managing the stresses of development. Economists, sociologists, and historians who have studied the development process agree that societies are buffeted by disorienting social, cultural, and economic crosswinds as they move from the traditional to the modern.[12] As countries are integrated into the global marketplace and the global culture, traditional economic and social structures are overturned and traditional value systems are challenged, sometimes triggering a backlash against modernization and globalization. This dynamic may help to explain the Muslim world's Islamist movement, just as it helps to explain the social revolutions

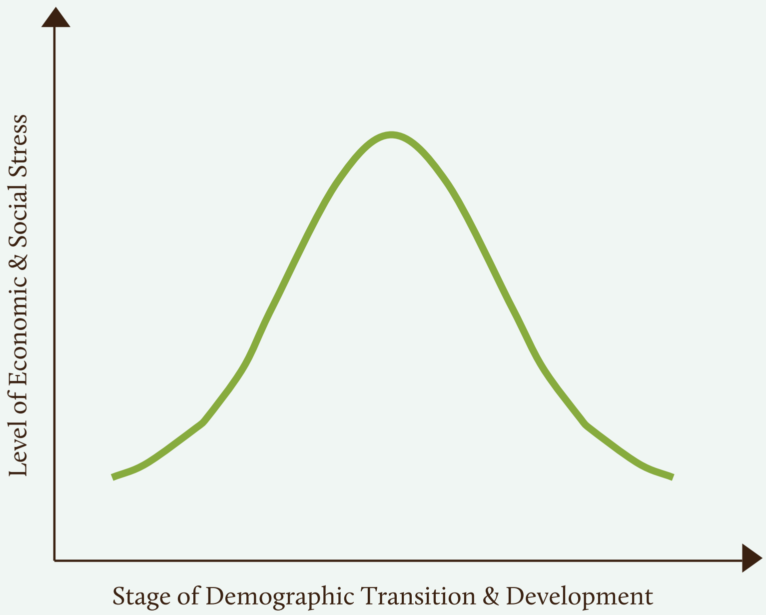
9. See, for example, David E. Bloom, "Education in a Globalized World," *World Economics* 7, no. 4 (October-December 2006).

10. World Development Indicators 2012, The World Bank, 2012, http://databank.worldbank.org.

11. Robert Barro and Jong-Wha Lee, "A New Data Set of Educational Attainment in the World, 1950-2010," NBER Working Paper no. 15902 (April 2010); and World Development Indicators 2012.

12. For a discussion of the literature, see Jackson and Howe, *The Graying of the Great Powers*, 142-50.

Figure 4. Stylized Representation of the "Development Hump"



Source: Authors' illustration.

that swept the West during the course of its own industrial revolution. Meanwhile, along with the economic benefits of rising living standards, development also brings the social costs of rapid urbanization, growing income inequality, and environmental degradation. When plotted against stage of development, many of these stresses exhibit a hump-shaped or "inverted-U" pattern, meaning that they become most acute midway through the demographic transition and the development process. (See figure 4.) While it is undoubtedly true that development ultimately helps to foster peace and stability, it is also true that journeys can be more dangerous than destinations.

Ironically, the countries that are undergoing the most rapid demographic transitions and the most rapid development may be the most at risk. To be sure, rapid transitions, if they trigger rapid economic growth, may quickly lift countries up and over the "development hump" and out of the transition's danger zone—which is what happened in the case of the East Asian Tigers. But along the way, rapid transitions also increase the stresses of development, since they give political systems, social institutions, and cultural attitudes less time to adapt. It is difficult to say how great the risk of social and political crisis is in today's faster-growing emerging markets, but some of the most successful appear to be taking it seriously. It is no accident that the Chinese government's new emphasis on "balanced development" and building a "harmonious society" coincides with mounting popular discontent over the rural-urban income gap, the inadequate social safety net, and the deteriorating environment.

Beyond these challenges, there is a final demographic hurdle that almost all emerging markets will sooner or later have to confront—namely, the aging of their populations. The favorable demographics that most of the developing world now enjoy will not last indefinitely. As the demographic transition progresses, the growth in the number of elderly will eventually overtake the decline in the number of children, dependency burdens will once again begin to rise, and the period of demographic dividend will come to an end. The magnitude of the developing world's coming age waves varies greatly, with the countries of East Asia and Eastern Europe projected to experience the largest. But except in those countries where the demographic transition has stalled, a dramatic aging of the population is inevitable. (See table 6.)

As they enter the final stage of the demographic transition, today's emerging markets will encounter many of the same difficulties now confronting today's developed economies, from rising fiscal burdens to graying workforces and declining rates of saving and investment. There is, however, an important difference—and one that may make the aging challenge even more daunting. The developing world's age waves will be arriving in societies that are not only less affluent, but that in many cases have not yet put in place the full social protections of a modern welfare state. In most developing countries, only a fraction of the workforce is earning a benefit under any type of pension system, either public or private. From China and India to Mexico and Malaysia, the

Table 6. Elderly (Aged 65 & Over), as a Percent of the Population, 1975-2050

	1975	2010	2030	2050
Nigeria	3.2%	3.4%	3.6%	4.9%
South Africa	3.2%	4.6%	7.8%	10.1%
Pakistan	3.7%	4.3%	6.0%	10.4%
India	3.4%	4.9%	8.3%	13.5%
Egypt	3.4%	5.0%	8.7%	14.2%
Bangladesh	3.5%	4.6%	7.6%	15.9%
Indonesia	3.4%	5.6%	10.5%	19.2%
Turkey	4.1%	6.0%	11.4%	19.6%

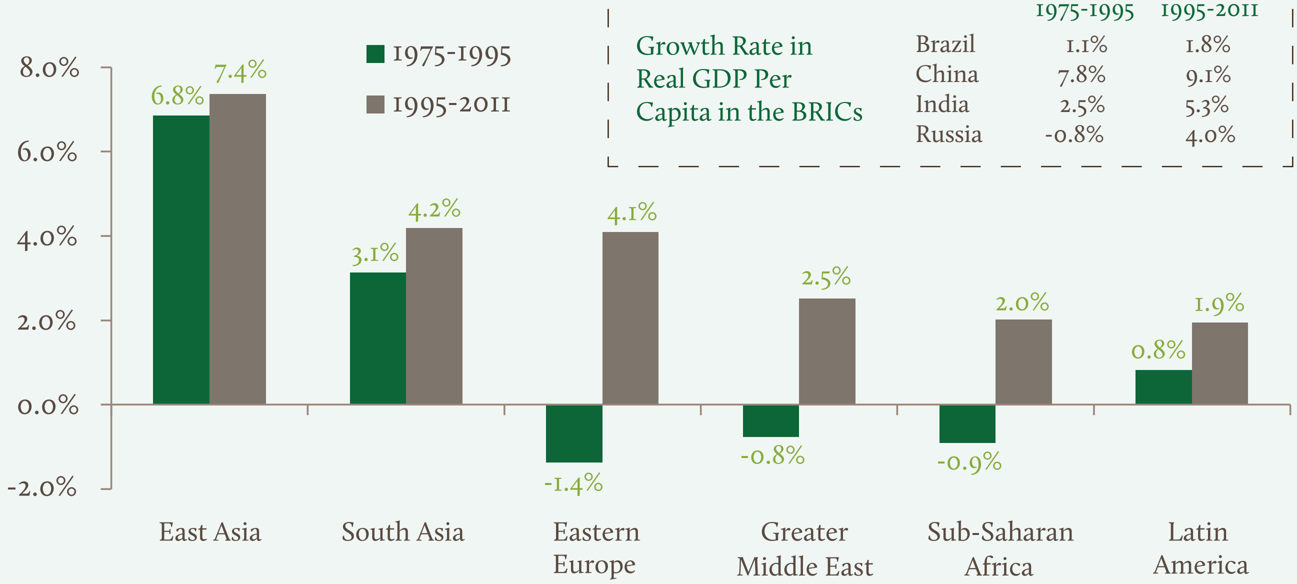
	1975	2010	2030	2050
Mexico	3.8%	6.3%	11.7%	19.9%
United States	10.5%	13.1%	19.9%	21.2%
Brazil	3.8%	7.0%	13.7%	22.5%
Vietnam	4.8%	6.0%	12.8%	23.1%
Russia	8.9%	12.8%	19.1%	23.1%
Iran	3.2%	5.2%	10.3%	23.5%
China	4.6%	8.2%	16.5%	25.6%
South Korea	3.5%	11.1%	23.3%	32.8%

Source: *World Population Prospects: The 2010 Revision.*

majority of elders still depend heavily on the extended family for economic support. Yet traditional family support networks are already under stress as countries urbanize and industrialize, and they will soon come under intense new demographic pressure as family size declines. An aging crisis of potentially immense dimensions looms in the future of some emerging markets if they fail to construct adequate old-age safety nets.

There are encouraging signs that many emerging markets that have been slow to leverage their demographic dividends may finally be getting it right. Economic performance in most of the developing world has improved markedly since the mid-1990s, thanks in large part to better macroeconomic management, pro-growth business and labor-market reforms, and more effective investments in human capital. (See figure 5.) A record number of countries have experienced at

Figure 5. Average Annual Growth Rate in Real GDP Per Capita (in 2005 PPP Dollars), by Period, 1975-2011



Growth Rate in Real GDP Per Capita in the BRICs

	1975-1995	1995-2011
Brazil	1.1%	1.8%
China	7.8%	9.1%
India	2.5%	5.3%
Russia	-0.8%	4.0%

Source: World Development Indicators 2012; Maddison, *Historical Statistics of the World Economy;* and *World Population Prospects: The 2010 Revision.*

Table 7. Real GDP Per Capita (in 2005 PPP Dollars), as a Percent of G-7 Average, 1975-2011

	1975	1980	1985	1990	1995	2000	2005	2011
East Asia	4%	5%	6%	7%	9%	11%	15%	24%
China	2%	2%	3%	4%	6%	8%	11%	20%
East Asian Tigers	28%	33%	39%	49%	63%	67%	74%	89%
Eastern Europe	45%	42%	40%	39%	21%	21%	27%	33%
Greater Middle East	30%	29%	23%	18%	16%	16%	17%	20%
Latin America	35%	35%	29%	26%	26%	25%	25%	29%
South Asia	5%	5%	5%	5%	6%	6%	7%	10%
Sub-Saharan Africa	10%	8%	7%	6%	5%	5%	5%	6%

Source: World Development Indicators 2012; Maddison, *Historical Statistics of the World Economy;* and *World Population Prospects: The 2010 Revision.*

least modest growth in real per capita income over the past 10 to 15 years, and a significant number have experienced rapid growth. Until recently, emerging East Asia was the only region of the developing world that was actually closing the income gap with the developed world. Now the other regions are beginning to gain ground as well. (See table 7.)

Yet enormous obstacles must still be overcome if the rest of the developing world is to replicate East Asia's success. To a large extent, developing countries will have to confront the challenge on their own—and as their incomes rise, they will increasingly have the economic and fiscal resources to do so. Nonetheless, there remains a crucial, if evolving, role for U.S. development policy to play.

CHAPTER 3
Lessons for U.S. Development Policy

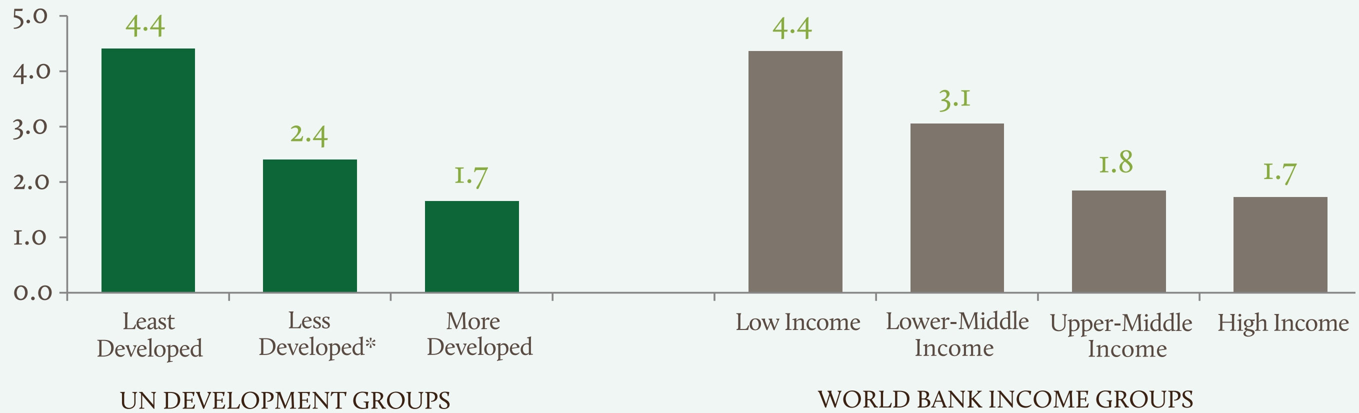
Demography may not be destiny, but it shapes the economic and social environment in profound ways. Unlike many other agents of historical change, moreover, demographic trends can also be projected with reasonable certainty. As such, they offer a road map of future development challenges—and point to critical lessons for U.S. development policy. Some of these lessons lend new support to shifts in thinking that are already evident in the development community, such as the recognition that it is important to remain engaged in the development of middle-income countries, that development policy must be broadly framed, and that official development assistance is only one—and perhaps not even the most important—of the tools that are available. Other lessons, such as the imperative of focusing on long-term development goals, even if the payoffs are not always measurable in the near term, tend to push against common wisdom. Either way, U.S. development policy would be well advised to pay more attention to the lessons of demography. There are seven that are most critical:

1 *The demographic transition is a prerequisite for development; countries where the transition stalls and fertility fails to decline do not develop successfully.*

The reductions in fertility rates that usher in the second phase of the demographic transition are an important and perhaps even an essential precondition for development. It is no accident that the average fertility rate of countries that the UN classifies as "least developed" (4.4) towers over the averages for other "less developed" countries (2.4) and "more developed" countries (1.7). The same fertility gradient is evident in the World Bank's classification of low-, middle-, and high-income countries. (See figure 6.) Unless the demographic transition progresses in countries where fertility remains stuck at very high levels, development is unlikely to take off—or if it does take off, it is unlikely to prove sustainable. There are currently 43 countries that still have a fertility rate of 4.0 or higher, compared with 114 in 1975. Of these, 34 are in sub-Saharan Africa, and of the remaining nine, all but two are in the Greater Middle East.

Two developments appear to be indispensible catalysts of the shift from high to low fertility. The first is improving health, and especially infant and child health. When more children survive to adulthood, fewer children are needed to achieve a desired family size, and over time families respond by having fewer. The second development is increasing educational attainment, and

Figure 6. Fertility Rate by Development Group and Income Group, Average for 2005-2010



* Excludes least developed countries.

Source: World Development Indicators 2012; and *World Population Prospects: The 2010 Revision.*

especially the educational attainment of girls. Educating girls not only broadens their horizons, but also improves their employment prospects, thus increasing the opportunity cost of childbearing. Although family planning services can play an important role in facilitating the decline in fertility once small families have become the new social norm, there is little evidence that they alone can trigger the shift to low fertility.[13] So long as infant and child mortality remain high and female educational attainment remains low, fertility rates usually prove resistant to change.

2 *Most of the developing world has entered a new demographic era in which the nature of development assistance needs is fundamentally changing.*

Until now, U.S. development policy has mainly focused on helping poor countries in the early stages of the demographic transition meet the basic human needs of their young and growing populations. With many of these countries lagging in meeting the UN's Millennium Development Goals, this kind of assistance will remain vital in parts of the developing world for years to come. Yet as the demographic transition and development progress, a growing number of countries are also facing a new set of challenges. Increasingly, the most pressing development challenge will no longer be ensuring universal access to primary education, but universal access to secondary education. It will no longer be increasing agricultural productivity, but creating broad, deep, and transparent financial markets. It will no longer be providing family planning services for young people, but pensions and long-term care services for old people. In some cases, it may be possible to reorient existing development programs to meet the new challenges. In others, entirely new programs may be needed.

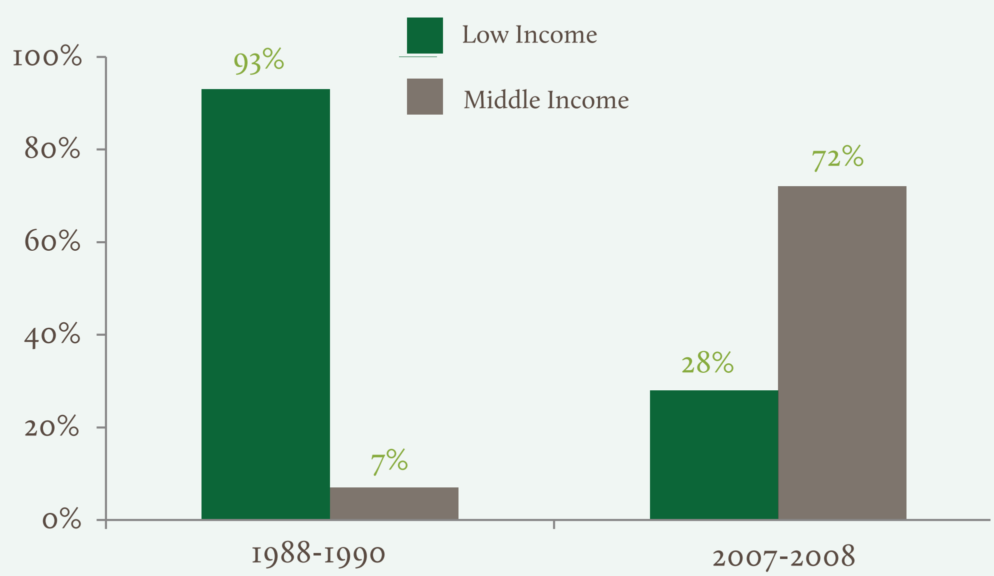
13. See, again, Connelly, *Fatal Misconception;* Pritchett, "Desired Fertility and the Impact of Population Policies"; and Raulet, "Family Planning and Population Control in Developing Countries."

3 *The United States has a vital interest in ensuring the successful development of middle-income countries as they move through the demographic transition.*

There are several reasons why U.S. engagement in the development of middle-income countries is crucial. To begin with, the mere attainment of middle-income status is not a reliable indicator of a country's ultimate development success. Despite the rise of the BRICs and the birth of a "global middle class," most emerging markets are in fact failing to leverage their demographic dividends. Many have languished in a "middle-income trap" for decades without any sign of rising to high-income status, and some are at risk of slipping back to low-income status. U.S. development assistance can play an important role in helping these emerging markets create the institutions and put in place the policies that are essential if they are one day to become fully developed, high-income countries.

It is also important to recognize that, contrary to what many assume, middle-income countries are where most of the world's poor now live. In 1990, 93 percent of the world's poor with incomes of less than $1.25 a day lived in low-income countries. Today, 72 percent live in middle-income countries. (See figure 7.) The explanation for this seeming paradox is simple: Economic growth over the past two decades has lifted *average* incomes in dozens of developing countries above the middle-income threshold, even as it has left

Figure 7. Percent of the World's Poor* Living in Low-Income and Middle-Income Countries, 1988-1990 and 2007-2008



* Poor is defined as having an income (in PPP dollars) of less than $1.25 per day.

Source: Andy Sumner, *Global Poverty and the New Bottom Billion: What If Three-Quarters of the World's Poor Live in Middle-Income Countries?* Institute of Development Studies (September 2010).

hundreds of millions of people in those countries mired in extreme poverty. Development economists Ravi Kanbur and Andy Sumner call this "the new geography of global poverty"[14]—and it is likely to be with us for many years to come.

Beyond these development concerns, there are compelling security reasons for engagement with middle-income countries. It is often asserted as a truism that development promotes peace and stability. As former UN Secretary General Kofi Annan once observed, "There will be no development without security and no security without development."[15] Although this may be true as a long-term proposition, the relationship between development and security is not linear. In fact, much research suggests that the incidence of many of the most serious types of security threats, including social revolution, international terrorism, interstate war, and genocide, initially rises along with economic and social development,[16] whose speed and timing themselves closely track the demographic transition in most countries. Security planners at the Pentagon have long been attuned to the risks of state failure in low-income countries. Yet the geopolitical consequences would be potentially far larger if one or more large middle-income countries became MIFFs—"middle-income fragile or failed states." In this context, U.S. development assistance, as one of the participants in the CSIS Roundtable on Demography and Development put it, should be viewed as "a long-term counterinsurgency strategy."

Then there is the threat of neoauthoritarianism to consider. Neoauthoritarian regimes like's China's have a twofold appeal to some developing countries. One appeal is their reputation for promoting economic growth (the upside of development) better than democracies. The other appeal is as a means of staving off the social and political upheaval that can be triggered by rapid demographic, economic, and cultural change (the downside). U.S. engagement in the development of at-risk countries may be crucial to help steer them away from neoauthoritarianism and toward liberal democracy. This engagement will become all the more important as China's own economic reach in the developing world grows.

4 *Meeting development needs in the new demographic era will require a new and more comprehensive formulation of U.S. development policy.*

Although the United States should remain engaged in the development of middle-income countries as they move through the demographic transition, the nature of the development assistance it provides will necessarily need to change. Many middle-income countries, and especially upper-middle-income ones, have the economic resources to address most of their own development needs. Direct funding of large-scale infrastructure projects, public health campaigns, or antipoverty initiatives is generally not what they need. What they do need is technical assistance with economic and social "capacity building." There is a wide range of areas in which such assistance may be required, including developing human capital, creating well-regulated capital markets, improving tax compliance, designing social safety nets and social insurance systems, strengthening governance, protecting human rights, and fostering the development of civil society.

14. Ravi Kanbur and Andy Sumner, "Poor Countries or Poor People? Development Assistance and the New Geography of Global Poverty," CEPR Discussion Paper 8489 (2011).

15. Quoted in Leahy et al., *The Shape of Things to Come,* 8.

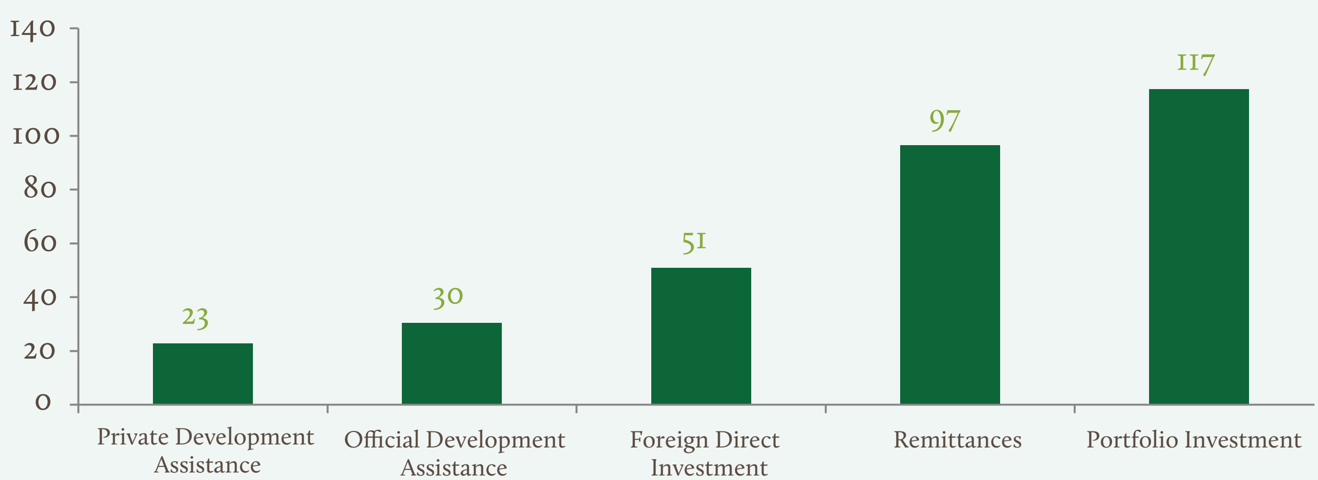
16. See, for example, William Easterly, Roberta Gatti, and Sergio Kurlat, "Development, Democracy, and Mass Killings," Working Paper no. 93 (Washington, DC: Center for Global Development, August 2006); Helen Fein, "More Murder in the Middle: Life-Integrity Violations and Democracy in the World, 1987," *Human Rights Quarterly* 17, no. 1 (February 1995); Alan B. Krueger and Jitka Malečková, "Does Poverty Cause Terrorism? The Economics and the Education of Suicide Bombers," *The New Republic,* June 24, 2002; and Michael Mousseau, "Market Civilization and Its Clash with Terror," *International Security* 27, no. 3 (Winter 2002/03).

At the same time that the nature of U.S. development assistance changes, the government's role in providing that assistance will also change. Up to now, the government has mainly functioned as a donor. In the future, as CSIS scholar Daniel F. Runde puts it, the most crucial role for government will no longer be as a donor, but rather as "a convener and facilitator for development."[17]

This shift will be driven not only by fiscal constraints, but also by the dramatic transformation of the global economy. In today's era of globalization, the economic relationship of the United States with the developing world is vastly different than it was when the basic architecture of U.S. development policy was first put in place in the early postwar decades. In 1960, official development assistance accounted for 73 percent of total net U.S. financial flows to the developing world. By 2010, that share had fallen to just 14 percent.[18] The foreign direct investment of U.S. corporations in developing countries now exceeds official development assistance by nearly 2 to 1. Remittances exceed it by 3 to 1 and portfolio investment exceeds it by 4 to 1. (See figure 8.) Then there is trade. The total value of trade between the United States and the developing world was $2.2 trillion in 2011, compared with just $12 billion in 1960.[19] Back then, the value of trade was four times greater than official development assistance; today, it is seventy times greater.

To maximize the effectiveness of U.S. development policy, the government will need to leverage its limited fiscal resources by partnering much more extensively with private-sector actors, especially businesses. U.S. corpo-

Figure 8. Net U.S. Financial Flows to Developing Countries (in Billions of Dollars), by Type in 2010



Source: Detailed Aid Statistics, OECD, 2012, http://stats.oecd.org/; and Bilateral Migration and Remittances 2010, World Bank, 2010, http://econ.worldbank.org.

17. Daniel F. Runde, *Seizing the Opportunity in Public-Private Partnerships: Strengthening Capacity at the State Department, USAID, and MCC* (Washington, DC: Center for Strategic and International Studies, 2011).

18. Detailed Aid Statistics, OECD, 2012, http://stats.oecd.org.

19. Correlates of War Project Trade Data Set Codebook: Version 3.0, Katherine Barbieri and Omar Keshk, 2012, http://correlatesofwar.org; and USITC Interactive Tariff and Trade DataWeb, United States International Trade Commission, 2012, http://dataweb.usitc.gov/.

rations can potentially commit far greater financial resources to development projects than USAID and other government development agencies can. Many also have long-term time horizons and a compelling business interest in the successful development of their host countries, since this will affect their supply chains, their labor supply, and the security and profitability of their investments. In instances where private investment is not forthcoming, government will need to encourage it through the greater use of loans, guarantees, and the other tools of development finance.More broadly, it will need to frame its development strategy as part of America's overall economic and security relationship with developing countries. In many cases, the U.S. government's stance on trade policy or immigration policy may matter as much or even more than its development assistance.

5 *The experience of East Asian countries, which have already successfully leveraged their demographic dividends, offers important lessons for development policy.*

In modern times, there appears to be only one successful development model—that first pursued by Japan, then by the East Asian Tigers, and, most recently, by China. Just as there are four key elements in Confucian philosophy's "fourfold way," there are four in this model. The first is sound macroeconomic management, without which any long-term development strategy is doomed to failure. The second is an export-led growth strategy based, at least initially, on low-end manufacturing, which allows countries to shift unskilled labor into the growth sectors of the economy. The third is massive investment in human capital, and especially quality secondary education, which then allows countries to move gradually up the global value-added scale. The fourth is good governance and the rule of law, which give businesses, families, and individuals the confidence to save and invest in their own future and their nation's future.

The experience of East Asia also suggests that successful development policy must be comprehensive. If key elements are lacking, success may prove elusive. Conversely, if all elements are present, countries can benefit from important synergies and multipliers. Rising female educational attainment not only reduces fertility rates, but also increases female labor-force participation. Without tax compliance, governments may find it impossible to finance the necessary investments in infrastructure, education, and social protection. Capital-market development is not only essential for leveraging the demographic dividend, but also for putting in place sustainable pension systems that can meet the aging challenge looming in the future of most emerging markets.

6 *Demography provides a road map that can help the development community anticipate and prepare for emerging new development challenges.*

Countries move through the development process in stages. Since these stages are closely correlated with each country's degree of demographic transition, future development challenges are highly predicable in both their nature and timing. Although meeting today's most pressing needs will always be a high priority, the development community increasingly will also have to focus on helping countries prepare for challenges that still lie over the horizon. Policies and programs tailored exclusively to meet the needs of a country at its current juncture in its arc of development may soon be obsolete—or worse, become counterproductive as that country advances through the demographic transition and the development process. In low-income and lower-middle-income countries where birthrates have begun to fall, development policy thus needs to look ahead to the challenge of leveraging the demographic dividend. In solidly middle-income countries where the working-age share of the population is rising rapidly, it needs to look ahead to the challenge of caring for an aging population.

In this regard, several participants in the CSIS Roundtable on Demography and Development expressed frustration with the current short-term focus of U.S. development policy, whose emphasis on immediately measurable results is biased against investments with long-term payoffs. Several also expressed frustration with the tendency to compartmentalize development needs. As one participant put it, development policy should be conceived comprehensively as a means of "preparing countries to navigate future challenge stages," rather than as a series of "discrete investments in various aid categories like education or health."

7 *Aging is the ultimate development challenge of the twenty-first century.*

While the greatest demographic challenge of the twentieth century was rapid population growth, the greatest demographic challenge of the twenty-first century will be rapid population aging. A few decades ago, the problem was too many babies. A few decades from now, it will be too many old people.

Throughout most of the developing world, the extended family remains the mainstay of old-age security, just as it has been since time immemorial. To the extent that formal retirement systems exist, they rarely cover more than a fraction of the workforce, and in many cases they are limited to government employees. Yet the family support networks on which most elders depend are under increasing stress from urbanization, industrialization, and the rise of more individualistic "Western values." And even where they remain strong, they will soon come under intense new pressure from declining family size. In India, the average number of children that elders can turn to for support will decline by 0.9 by 2040. In China it will decline by 1.6 and in Mexico by 2.5.[20]

A decade ago, the developing world's aging challenge was barely on the radar of the development community. In recent years, however, it has become the focus of growing attention, especially at the World Bank and other international development agencies.[21] Most experts agree that the first crucial step that developing countries must take to meet the challenge is to put in place a tax-financed, noncontributory "social pension" that serves as a floor of protection against destitution in old age. In Brazil, which has a social pension, the elderly poverty rate is just 5 percent, while in Mexico, which does not, it is 25 percent.[22] Above this floor of protection, developing countries need a broad-based contributory pension system that is both adequate and sustainable. Funded pension systems may be superior to pay-as-you-go systems, since they create greater incentives for workers to participate, can offer a higher rate of return on contributions, and speed the development of capital markets, another crucial development objective. Whichever financing model countries choose, they will have to overcome enormous administrative obstacles, from building an infrastructure for routing contributions and benefits to creating national registration and ID systems that minimize fraud and abuse.

While it is tempting to think that the developing world still has ample time to prepare for its aging challenge, this would be a mistake. In many emerging markets, the vulnerability of the elderly is already growing. Putting in

20. Richard Jackson, Neil Howe, and Keisuke Nakashima, *The Global Aging Preparedness Index* (Washington, DC: Center for Strategic and International Studies, 2010), 40.

21. See, for example, Robert Holzmann, David A. Robalino, and Noriyuki Takayama, eds., *Closing the Coverage Gap: The Role of Social Pensions and Other Retirement Income Transfers* (Washington, DC: The World Bank, 2009); and Robert Holzmann and Richard Hinz, *Old-Age Income Support in the 21st Century: An International Perspective on Pension Systems and Reform* (Washington, DC: The World Bank, 2005).

22. *The Global Aging Preparedness Index*, 37.

place the infrastructure for pension systems entails a major commitment of resources, and the systems themselves can take decades to mature. Meanwhile, with each passing year, the developing world's age waves are drawing nearer.

The demographic transformation now sweeping the developing world is helping to remove many of the obstacles that have traditionally impeded development—and preoccupied the development community. Yet at the same time, the transformation creates a new set of challenges that may prove even more daunting. Since these challenges typically confront middle-income countries, meeting them will require rethinking the basic assumptions, goals, and tools of U.S. development policy. Official development assistance, at just $31 billion in 2011, is far too small to finance more than a fraction of the investments that middle-income countries need to make to ensure their successful development, and in the current fiscally constrained environment it is unlikely to increase. What is needed is not a new commitment of fiscal resources, but a new approach that is based on leveraging public-private partnerships, effectively deploying development finance, and building bilateral and multilateral relationships.

Some may argue that assisting rising middle-income countries, many of which have the economic and fiscal means to meet their own development needs, lies beyond the proper scope of U.S. development policy. But this view is shortsighted. While the United States has a compelling humanitarian interest in alleviating poverty and suffering in the developing world, it also has a compelling geopolitical interest in ensuring the expansion, prosperity, and security of the liberal world order. U.S. development policy has a critical role to play in furthering both interests. In the new demographic era, it will thus continue to be as important—or even more important—than before. ▲

Appendix 1
CSIS Roundtable on Demography and Development

In June 2012, CSIS convened an expert roundtable composed of a dozen prominent demographers, economists, social protection experts, and development community representatives for a three-quarter day discussion of the issues investigated in this report. The authors are grateful to the roundtable participants, listed below, for sharing their time, expertise, and insights. The views expressed in this report, however, are those of the authors and do not necessarily reflect the views of the roundtable participants.

JAMES BOOMGARD, *President and CEO, DAI*

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SARAH JANE STAATS, *Director, Rethinking U.S. Foreign Assistance Program, Center for Global Development*

Appendix 2
Regions of the Developing World

In this report, the countries of the developing world are divided into six regional groupings. These groupings are CSIS-defined and do not necessarily correspond to UN groupings with the same names. The following list excludes countries with a population of less than one million.

SUB-SAHARAN AFRICA

Angola
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Comoros
Congo
Côte d'Ivoire
D.R. Congo
Equatorial Guinea
Eritrea
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Kenya
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritius
Mayotte
Mozambique
Namibia
Niger
Nigeria
Réunion
Rwanda
São Tomé and Príncipe
Senegal
Sierra Leone
South Africa
Swaziland
Tanzania
Togo
Uganda
Zambia
Zimbabwe

GREATER MIDDLE EAST

Afghanistan
Algeria
Armenia
Azerbaijan
Bahrain
Djibouti
Egypt
Iran
Iraq
Israel
Jordan
Kazakhstan
Kuwait
Kyrgyzstan
Lebanon
Libya
Mauritania
Morocco
Oman
Pakistan
Palestinian Territories
Qatar
Saudi Arabia
Somalia
Sudan
Syria
Tajikistan
Tunisia
Turkey
Turkmenistan
United Arab Emirates
Uzbekistan
Western Sahara
Yemen

EAST ASIA

China
Hong Kong, SAR
Macao, SAR
Mongolia
North Korea
Singapore
South Korea
Taiwan

SOUTH ASIA

Bangladesh
Bhutan
Brunei Darussalam
Cambodia
India
Indonesia
Laos
Malaysia
Maldives
Melanesia
Micronesia
Myanmar
Nepal
Philippines
Polynesia
Sri Lanka
Thailand
Timor-Leste
Vietnam

EASTERN EUROPE

Albania
Belarus
Bosnia and Herzegovina
Croatia
Georgia
Macedonia
Moldova
Montenegro
Russia
Serbia
Ukraine

LATIN AMERICA

Argentina
Belize
Bolivia
Brazil
Chile
Colombia
Costa Rica
Cuba
Dominican Republic
Ecuador
El Salvador
French Guiana
Guatemala
Guyana
Haiti
Honduras
Jamaica
Mexico
Nicaragua
Panama
Paraguay
Peru
Puerto Rico
Suriname
Uruguay
Venezuela
Rest of Caribbean

About the Authors

Richard Jackson is a senior fellow at CSIS, where he directs the Global Aging Initiative, a research program that explores the economic, social, and geopolitical implications of demographic trends in the United States and around the world. He is also a senior adviser to the Concord Coalition. Jackson is the author or co-author of numerous policy studies, including G*lobal Aging and the Future of Emerging Markets* (2011); *The Global Aging Preparedness Index* (2010); and *The Graying of the Great Powers: Demography and Geopolitics in the 21st Century* (2008). Jackson regularly speaks on long-term demographic and economic issues and is widely quoted in the media. He holds a Ph.D. in history from Yale University and a B.A. in classics from SUNY at Albany. He lives in Alexandria, Virginia, with his wife Perrine and three children, Benjamin, Brian, and Penelope.

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