Flash Points and Tipping Points: Security Implications of Global Population Changes

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Is improving relations between Western and Muslim countries crucial to fixing pension programs in Europe and the United States? Can reversing the "brain drain" of medical talent migrating from developing countries to developed ones improve the budget balance of developed nations? Will economic growth in China and India draw investment and innovation away from the United States, Japan, and Europe?

These questions are sparked by predicted trends in global population dynamics over the next half century. In this article, I examine four major trends that are likely to pose significant security challenges to Europe, Japan, and most other developed nations in the next two decades:[1]

(1) Disproportionate population growth in large and Muslim countries;
(2) Shrinking population in the European Union and European former Soviet countries;
(3) Sharply opposing age shifts between aging developed countries and youthful developing countries; and
(4) Increased immigration from developing to developed countries.

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The security and conflict problems caused by population growth are not mainly due to shortages of resources. Rather, population *distortions*—in which populations grow too young, or too fast, or too urbanized—make it difficult for prevailing economic and administrative institutions to maintain stable socialization and labor-force absorption (Goldstone, 2002; Cincotta et al., 2003; Leahy et al., 2007).

Big Emerging Markets and the World Economy

Countries are growing today for two major reasons: high population growth rates and demographic momentum.[2] In some countries, mainly in Africa and the Middle East (as well as a few in Latin America and South Asia), birth rates remain much higher than mortality rates, so growth rates are more than 2.0 percent per year. In these countries—which include Afghanistan, the Democratic Republic of the Congo, Guatemala, Iraq, Jordan, Nepal, Saudi Arabia, Pakistan, and Yemen—the population is still doubling every generation, or roughly every 30-35 years (UN Population Division, 2007).

In other countries, such as China, India, and Indonesia, population growth rates have recently dropped substantially; in percentage terms, they are growing more slowly than they have in the past (UN Population Division, 2007).

However, these countries already have such a large cohort of women of childbearing age that their populations continue to add significant numbers each year. In China, for example, although most couples have fewer than two children, zero population growth is still several decades away. While current growth rates have sunk to around 0.6 percent per year, China will add nearly 80 million people during each of the next two decades before its population peaks.

India, though not quite as large as China today, is growing twice as fast, at 1.4 percent per year, and will add roughly 135 million people per decade for the next two decades. Even with a continued decline in their birth rates, these two countries alone are expected to add roughly 400 million people by 2025—more than the entire population of the United States, the United Kingdom, the Netherlands, and Belgium today *combined*.

Most of the 20 largest countries in the world have modest growth rates but large demographic momentum, and thus will make the largest contributions to total world population growth in the next 20 years. The fastest-growing countries are generally smaller, but are facing the largest burden of additional growth on a percentage basis (see Table 1). For the next several decades, global population growth will be concentrated in only a few regions and countries, mainly Muslim societies (almost the entire top half of Table 1) and huge states with populations of 75 million or more. Most of the states that dominate Table 1 are also among the world's lower income countries. By contrast, population growth rates in Europe and Japan are already low and, in some cases, negative.

Therefore, the proportion of the world's population living in Muslim states, or in the very largest and very poorest states, will grow, and the proportion of the world's population living in developed countries will shrink. The sole exception is the United States, which is expected to add 50 million people in the next 20 years—mostly due to recent and projected immigration of people born elsewhere.

Some countries with extremely rapid population growth are likely to manage it reasonably well due to sound management and strong economic growth (e.g., Kuwait and the United Arab Emirates). However, in a number of "flash points," the inability to integrate rapidly expanding populations into politics and the economy will lead to radical political mobilization among those angry at not attaining the level of prosperity reached by some of their neighbors.

Some of the extremely large countries will probably manage their anticipated growth without conflicts. Yet the sheer size of the population increases they face in coming years, combined with their efforts to rapidly industrialize, means that many will also face a "tipping point," when uneven development leaves tens of millions of disadvantaged people to watch other millions reap the benefits of rapid growth. The disparities of economic fortune among classes, regions, or ethnic groups may become so great as to spark violent protests. Or the migration of rural masses to urban and industrial centers could produce a social crisis.

We cannot predict which countries will face such crises, as they are due to failed political leadership and administrative management more than population changes *per se*. But we can say that in many of the largest countries, governments will face exceptional challenges in meeting their populations' demands for both strong and equitable economic growth and sound political management.

We can say with certainty that these trends pose major dilemmas for the economic policy and development of the West, particularly Europe. In 2005, only 5 of the 25 largest countries in the world were in Europe, with a combined population of roughly 400 million, or about one-tenth the total population of the remaining countries (UN Population Division, 2007). By 2025, just two decades distant, there will be only four European countries in the top 25, with a total population of 338 million, or about seven percent of the 5.5 billion inhabitants of the other 21 countries. By 2050, there will be only three European countries in the top 25 with a total population of 258 million, or just four percent of the 6.3 billion in the other

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22 countries. Europe's weight in the top 25 countries is shrinking dramatically.

The expected changes in Europe's global demographic weight are even more striking. In 2005, all of Europe comprised 731 million people, which is projected to shrink to just 664 million by 2050, while the rest of the world grows from 5.8 billion to 8.5 billion (UN Population Division, 2008). That is, in a single generation (the next 42 years), global population outside of Europe will increase by 2.7 billion while Europe's population will *decrease* by about 67 million.

The shrinking demographic weight of European countries puts them on the horns of a dilemma. If the economies of fast-growing developing countries do not catch up to those of the richer countries, then the standard of life enjoyed by the West will seem more elite and unfair than ever, fueling resentment of developing countries against the G-8. On the other hand, if economic growth in those countries does exceed that of the West, so that living standards in poor countries or regions starts to approach those of rich countries or regions, then the combination of shrinking population and lagging economies will render the G-8 countries more and more irrelevant to the world economy. Greater resentment or greater irrelevance: certainly a difficult choice.

Europe's combined GDP in 2007 was US$14 trillion dollars (CIA, 2008). Assuming GDP growth per capita of 2.5 percent per year and no net population growth, Europe's economy would increase by US$9 trillion (excluding inflation) by 2025. For Asia (excluding Japan), 2007 GDP was slightly larger, at US$18 trillion dollars (CIA, 2008). But due to modest growth in GDP per capita plus large population increases in most countries, total GDP is growing far more rapidly in this region. Iran and Pakistan achieved recent growth rates of 4 and 6 percent per year, respectively, while India and China were growing by 8-10 percent per year—and despite the global economic downturn, both countries are expected to continue growing by 6-7 percent in 2009 (CIA, 2008; EIU, 2008). If Asia (excluding Japan) can sustain an overall growth rate of total GDP of 5 percent per year over the next 20 years, the increase in Asia's GDP would be US$30 trillion¸ or more than three times the total economic growth of Europe.

If Asian GDP does not grow at 5 percent per year, living standards in Asia will not catch up to those in Europe (and Japan). Yet if Asian GDP does grow at that pace, then given the size of Asia, the preponderance of economic growth on the Eurasian continent will be occurring outside of Europe. Greater degrees of investment and innovation are likely to move to areas outside of Europe, further weakening its economic strength and leadership. In other words, we are on the cusp of a global tipping point, in which East and South Asia come to eclipse Europe and Japan as major sources of global economic growth—a point made all the more sharper as Europe and Japan slip into recession at the end of 2008.

These demographic and economic changes also indicate that the military capacities of large developing countries will increase, while the ability of rich nations to put "boots on the ground" in conflict zones will diminish. Managing conflicts involving developing countries will become more difficult, and will put more of a strain on developed countries' economies, than before.

As the portion of the global economy contributed by the G-8 countries shrinks, countries such as China, India, Turkey, Brazil, Indonesia, and Mexico will become global economic powers. Admitting major regional powers into international governance bodies is vital if those organizations are to retain legitimacy. The November 2008 Summit on Financial Markets and the World Economy expanded the "G-group" to include these big emerging democratic economies—a trend that must continue if such efforts are truly going to grapple with the global economy.

Naturally, these measures will provoke great opposition and controversy. However, if Europe chooses to isolate itself from the global popula-

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tion and the global economy, it will continue to shrink in relation to the world. Moreover, if Europe fails to support economic growth outside of Europe, the rapidly increasing numbers of people in non-European and mainly Muslim countries is simply going to fuel ever-greater resentment of Europe's position, exacerbating the problems of terrorism, smuggling, and illegal trafficking as the ways to "get ahead" and "get even." In short, Europe has no choice but to support and actively engage the fast-growing countries of the world, improve relations with their populations, and support—and seek to share in—their growth.

The Great Slowdown in Population Growth in High-Income Countries

During the next several decades, the population of most European countries, including Russia, Germany, Italy, Ukraine, Spain, Poland, Romania, the Czech Republic, and Hungary, will shrink substantially, due mainly to a sharp decline in the number of children per couple, to well under 2.0 and in some cases under 1.5 (UN Population Division, 2007). This slowdown will be accompanied by a rapid increase in the percentage of the population in higher age brackets, as the number of young children falls further behind the number of aging baby boomers. By 2050, the percentage of Japan's and Europe's population over age 60 is expected to double, to 35 to 40 percent of total population (Jackson & Howe, 2008).

This pattern is highly novel and abnormal. Historically, population growth has stagnated on occasion, or been substantially reduced by major epidemics, but the cause was high mortality, especially among the young. Birth rates remained high, and when conditions were more propitious to growth, population increase resumed. In modern Europe, the United States, Canada, and Japan, decreasing birth rates have precipitated population decline. Women are marrying later, if at all, and having fewer children. The result is an unprecedented aging of populations (less so in the United States), at the very same time that national economies can be expected to decline dramatically as a percentage of global GDP.

Table 1: Fastest Growing Countries, 2000–2005 (with at least 1 million people)

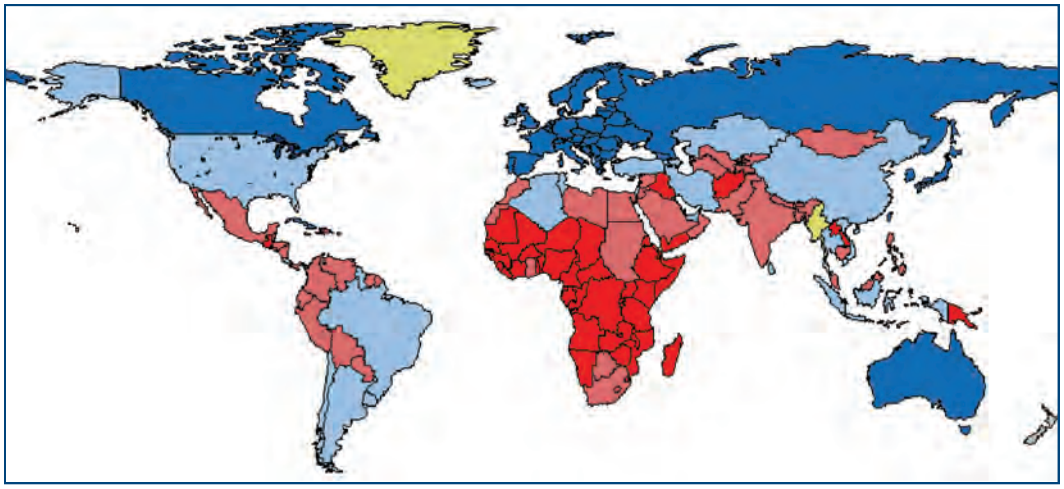
	ANNUAL GROWTH RATE, %
United Arab Emirates	4.7
Sierra Leone	4.2
Eritrea	4.1
Afghanistan, Kuwait	3.8
Chad, Palestine (occupied)	3.6
Niger	3.5
Burundi	3.3
Burkina Faso, Benin, Uganda	3.2
Gambia, Guinea-Bissau	3.1
Congo (Dem. Rep.), ***Mali, Somalia, Yemen***	3.0
Angola, ***Jordan, Mauritania,*** Togo	2.9
Iraq, Madagascar	2.8
Syria	2.7
Ethiopia, Kenya, Malawi, ***Senegal,*** Tanzania	2.6
Guatemala, ***Nigeria, Saudi Arabia***	2.5

Note: Countries with large Muslim populations in italics.
Source: UN Population Division (2007).

This slowdown in population growth has major implications for overall economic growth (Eberstadt, 2001). The economies of aging nations will not be stimulated by growing numbers of consumers and demand for housing. The capital growth generated by larger generations of young people approaching their peak earning years and saving for retirement will cease as well. Even if the growth of Europe's income per capita remained constant, its overall economic growth rate would be cut in half as the population declines over the next 30-50 years.

An overall growth rate this small allows few margins for accumulation to invest for the future. As Benjamin Friedman (2005) has argued, substantial growth rates allow more groups to share to some degree in growth, and

Figure 1: Age Structures: Percentage of Population Under Age 15 (2005)



Red: 40+ Pink: 30–39 Light Blue: 20–29 Dark Blue: <20

Source: Data from UN Population Division (2007).

provide social resources for a variety of services and investments. Overall growth rates below 2 percent per year, by contrast, allow for little redistribution or investment, and tend to heighten social conflicts over such issues as pensions, migration, and labor/employer relations—situations we might see as the global economic downturn progresses.

At the same time, the populations of much of the developing world will be tilted in the opposite direction, to a larger percentage of youth (Fig. 1). The youngest countries—all in the developing world—will have populations with only about 5 percent above age 60, but with nearly 50 percent under age 14 (UN Population Division, 2007). While Europe and Japan will approach the mid-21st century with populations that are tilted toward the old, much of the developing world will have populations that are tilted toward the young (see map).

The obvious result of this imbalance is already taking place: a massive migration of young and working-age populations from the developing world to the developed world. Between 2000 and 2005, 2.6 million migrants moved each year to more developed countries from less developed regions (UN Population Division, 2006). Seeking new livelihood opportunities and entry-level jobs, young people are irresistibly drawn from high-youth-density regions to those with a lower percentage of youth; the OECD countries currently host 10 million foreign-born immigrants ages 15-24 and 55 million between ages 25-64 (OECD, 2008).

Yet this immigration—increasingly contentious in the developed world—is not the only consequence of this imbalance. To sustain their elderly populations, Europe, Japan, and North America will have to spend more money on health care and pension support. Whether active or ailing, the elderly population will need intensive medical procedures and medications necessary to sustain an active and healthy life into older ages—at a time when the domestic supply of new doctors and nurses will likely decline.

Keeping the elderly population at work is not a solution; older workers will generally not welcome entry-level work at entry-level wages, nor physically demanding work. Those gaps in the labor force will have to be filled by younger workers. Moreover, while older workers excel in experience and judgment, they do less thinking "outside the box." Path-breaking innovations in science and technology overwhelmingly come from those under age 45; countries with fewer

Muslim women and children eating cotton candy in Amsterdam (Courtesy flickr user CharlesFred; http://www.flickr.com/photos/charlesfred/278131564/in/pool-euro-muslim)

and fewer younger workers will likely lose an edge in innovation as well.

Developed nations can try to head off this impending growth slowdown in four ways. First, they can improve productivity by investing in technology, education, and innovation. An increase in productivity producing a 1 percent greater gain in output per capita per year would more than offset the change in population. Europe, in particular, should make it easier for individuals to start companies and use capital and labor flexibly to encourage entrepreneurial enterprises—which are the most important source of productivity-increasing growth (Goldstone, 2006). Universities should seek increased support for training and research in the most technically important fields of biology, materials science, and engineering, and offer incentives to steer more students to the technical and engineering fields.

Human capital must not be allowed to sit unused. In 2006, in the United States and Canada, roughly 63 percent of the population over age 16 were employed; in the EU-15, only 52 percent of people over age 16 were employed. Although some European countries had workforce participation rates of 60 percent or more, France, Germany and Spain were at only 51-52 percent, and Italy at 46 percent (U.S. Department of Labor, 2008). Increasing Europe's overall employment participation rates to North American or upper European levels would by itself offset the decline in its working-age population for nearly a decade.

Secondly, countries could increase immigration and seek to raise immigrants' productivity and earnings to the average level as quickly as possible. While integrating and educating immigrants can take a generation or more, the United States, Australia, and Canada have enjoyed the benefits of making it easy for immigrants (especially skilled ones) to start businesses, acquire education, and move into the mainstream, such that the incomes of many immigrant groups exceeds the national norm. Even lower-skilled migrants can raise the overall productivity of a society, if they work for lower wages than had previously been paid to non-migrants for similar work.

Unfortunately, both in Europe and recently in the United States, debates on immigration have exposed the fear that immigration steals wealth from the native population. This pernicious view echoes the similarly mistaken idea that protecting trade by imposing high tariffs or blocking foreign investment will preserve the prosperity of a country. Migrants tend to

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self-select for entrepreneurial talent, ambition, and energy, and therefore produce net gains for national economies that accept them (Simon, 1999). A European country (or Japan) that has lost much of its own demographic momentum and energy can ill afford to exclude new generations, even if they come from abroad.

A third way to head off this impending growth slowdown would be to pursue pro-natal policies that encourage larger families among the existing populations. However, it is not clear which policies would do this; demographers do not fully agree on the reasons underlying a baby boom. Unless societies start placing a higher worth on larger families than on expanding the consumption of consumer goods, small families will continue to be preferred. In richer countries, higher fertility is mainly found among more religious families, which is one of the factors accounting for much higher population growth in the United States than in Europe (Longman, 2006). Short of a religious revival in Europe, a major increase in fertility and family size seems the least likely solution to the continent's demographic and economic decline.

Fourth, and perhaps least discussed, encouraging a "reverse flow" of older migrants from developed to developing countries could create great benefits for both. If older migrants take their retirement along the southern coast of the Mediterranean, or in Latin America or Africa, it can greatly reduce the costs of their retirement. Of course, developing countries will need quality residential and medical facilities to make them desirable destinations. This effort could also counteract the constant drain of medical and nursing talent to rich developed countries. "Medical tourism" to many developing countries has already begun as residents of developed countries seek lower prices for medical procedures. Investing in facilities that will make long-term retirement attractive in cheaper locales will reduce the pension and medical cost burden for developed countries while channeling jobs and investment to developing countries with ample labor.

While Europe, the United States, and Japan will have older populations, and many nearby developing countries will have young populations, the global population as a whole will be nonetheless be heading for a relatively healthy age distribution of population. The most logical way to overcome the population distortions in varied regions will therefore be to ease the barriers to movement across borders to take advantage of the overall balance.

No doubt, a combination of all four methods will be required to offset the slowdown in population growth in high-income countries. Yet we should recognize that one of the biggest obstacles is the growing antagonism between the West and much of the Muslim world. The way forward for the West lies in greater openness and integration, increased investment in growth abroad, better integration of immigrant communities, and reduced barriers to emigration from fast-growing but youthful societies. None of this is possible with the high levels of fear, mistrust, and antagonism between the West and populations of many of the largest and fastest growing countries of the world. We must reach the degree of cooperation necessary to respond to the global population changes already in place for the next half-century. Much more than terrorism, these trends will affect the long-term prosperity of the developed, but stagnating and rapidly aging, populations of the West, and the fast-growing and extremely youthful population of the developing and largely Muslim nations.

Notes

1. This article is based on a paper of the same title forthcoming in the *Mackinder Journal* and presented to the Mackinder Forum, Minster Lovell, United Kingdom, March 14-15, 2006. It was also presented to the Conference on Population Changes and Global Security, sponsored by the Federal Academy for Security Studies and Atlantik-Brücke, Berlin, Germany, November 13, 2006.

2. Migration is not a major factor in those countries experiencing substantial population growth, with the exception of the United States, where migration and the high birth rates of immigrants have produced exceptional population growth for a highly industrialized nation. In some other highly industrialized coun-

REPORT ONLINE

Jack Goldstone and Eric Kaufman discussed "Flash Points and Tipping Points" in a Wilson Center webcast in February 2007: http://www.wilsoncenter.org/index.cfm?topic_id=1413&fuseaction=topics.event_summary&event_id=218994

The Global Report on Conflict, Governance, and State Fragility 2007: Gauging System Performance and Fragility in the Globalization Era, by Monty Marshall and Jack Goldstone, plots the profound split between "Haves" (about 15 percent of the global population) and "Have-nots," while the report's State Fragility Index and Matrix ranks countries according to their degree of stability: http://www.fpbmonitor.com/action/reader?head=scorecard&jid=FPB

Jack Goldstone and Monty Marshall presented the *The Global Report on Conflict, Governance, and State Fragility* in a Woodrow Wilson Center webcast in March 2007: http://www.wilsoncenter.org/index.cfm?fuseaction=events.event_summary&event_id=225091

tries—the United Kingdom, France, the Netherlands, and the Scandinavian countries—migration is offsetting decline or stagnation in the native-born population, but it is not sufficient to substantially increase the population. For example, the projected growth rate in the United Kingdom to 2025, including migration, is only 0.32 percent per annum.

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