A five-year research project reveals that the future of commerce worldwide will be greatly influenced by a dozen “global tectonics” that will affect business leaders across all industries:

1. Biotechnology
2. Nanotechnology
3. Information technology
4. Population
5. Urbanization
6. Disease and globalization
7. Resource management
8. Environmental degradation
9. Knowledge dissemination
10. Economic integration
11. Conflict
12. Governance
On a worldwide scale, business leaders and researchers are gearing up for the changes that will affect business practices in the 21st century and beyond. As we have seen, some of these changes are the result of the rapid-fire technological developments fueling the knowledge economy, such as advances in biotechnology, nanotechnology, and information systems. Other global changes stem from societal trends — in short, the way people interact with and respond to changes in their environment. Perhaps the most discernible and certainly one of the most significant of these is the shift in the nature and rate of global population growth.

Population trends have a vast and wide-ranging impact, affecting everything from economic patterns to the balance of political power. What does this mean for business? The ability — and flexibility — to adapt to these shifts, however incremental, will determine a business’s degree of success and access to opportunities for many years to come.

Research has identified four main characteristics of population change that will affect business practices in the coming decades:

- **A relatively rapid rise in world population.** The Population Reference Bureau estimates that by 2025, the global population will have risen from its current 6.35 billion to 7.8 billion — an increase of nearly a quarter of the current population. By 2050, that number is expected to increase 15 percent to 20 percent, to close to 9 billion.
- **The overall rate of growth is actually decreasing** even while the total population is on the rise (Figure 1). In the late 1960s, when many analysts were concerned about the imminent population explosion, the rate of growth across the world had already peaked; since that point, it has dropped significantly — by some 40 percent. The International Institute for Applied Systems Analysis predicts that the absolute level of global population will stabilize at around 9 billion sometime in the latter part of the 21st century and then begin a gradual decline.

How is this relevant? In practical terms, many researchers were worried about a global population explosion at a time when the highest rate of population growth had already come and gone. Early projections of population levels approaching 12 billion or even higher were simply way off the mark. Therefore, the assumptions that have driven strategic planning for the past 50 years no longer apply. Effectively responding to the equally significant changes sug-

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**The growth of world population, 1950-2025**

![Image of population growth curve](image)

*Figure 1. Even though the rate of population growth is declining, the population is increasing.*

*Source: U.S. Bureau of the Census*
Shorter American lives?

Life expectancy in the United States could decline later this century due to dramatic increases in obesity, especially among young people and minorities.

This prediction comes from a research study that notes obesity currently reduces life expectancy by approximately four to nine months.

“The magnitude of that effect may sound trivial to some, but in fact it’s greater than the negative effect of all accidental mortality, such as car accidents, suicides, and homicides combined,” said research lead S. Jay Olshansky, a professor of epidemiology at the University of Illinois at Chicago.

The researcher team also predicts that the rapid rise in obesity among children and teenagers in the past 30 years will have life-shortening effects in the future — perhaps enough to offset any improvements in longevity from anticipated advances in biomedical technology.

They also believe the life-shortening effect of obesity could rise so rapidly in the United States — from two to five years in the next 50 years — that it may eventually exceed the current life-shortening effects of cancer or ischemic heart disease.

Researchers have identified five ways in which demographic change will have a significant impact on the global business environment.

**What it means**

What will the tectonic force of population trends mean for business? Researchers have identified five ways in which demographic change will have a significant impact on the global business environment:

- **Economic challenges.** Specifically, there will be challenges concerning the nature of economic activity, rate of economic growth, market growth, demand for goods and services, capital flow and volume, availability of labor, consumer tastes and preferences, and the use of natural and strategic resources (such as food, water, and energy).
- **The need to adapt to aging populations.** More than ever before, governments and corporations will face pressures stemming from aging labor pools, financial strain from overloaded pension systems, and rapidly changing lifestyles and consumer preferences as the world population continues to age.
- **Changes in the labor supply and the demand** for certain infrastructures and services. This will be particularly true in companies striving to cope with increased urbanization and immigration.
- **The potential for intergenerational conflict** as older workers retire and younger workers are confronted with responsibility for their care while facing the prospect of a lower standard of living than that of their parents and grandparents.
- **Shifts in geopolitical balance,** especially in Japan and Europe, where, faced with increased expenses to care for older citizens, there will be less money available to allocate for advances in such areas as national defense, foreign policy, and research and development.

On a small scale, geopolitical outcomes will affect the risk premiums that corporations attach to doing business in less stable parts of the world. On a much larger scale, they may have negative implications for global output growth.

**Future world**

What will this new world look like?

In some ways, not very different. Asia will remain the most populated area of the world. (The continent and subcontinent currently account for more than half of the world’s population, with two of every five people living in either China or India alone.)

In regional terms, the Near East (the Middle East and North Africa) will see the largest relative demographic increases, fueled by population booms across many countries, from Saudi Arabia to Yemen and Iran to Egypt. Sub-Saharan Africa will emerge as the world’s fastest-growing region, according to the United Nations Population Fund, while Europe (including the former Soviet states) will experience
One way to address this problem is for labor-intensive industries to seek opportunities to use the burgeoning labor force in developing states. Many companies, including Levi Strauss and Co. and General Electric, have moved at least part of their operations to India, China, and South America, where reduced labor costs bolster profitability. Some of these countries can then employ their vast labor pools to reach higher levels of economic development, creating a win-win situation.

On the other side of the coin, many developed countries — such as the United States, Japan, and those in Europe — can expect stagnant or even diminished population growth. Thanks to immigration, the United States is fairly immune to economic pressures faced by countries such as Japan and Russia, which, according to the U.S. Census Bureau, could lose one-third of their current populations by the year 2050. On a larger scale, these countries will collectively drop in relative size from an aggregate 20 percent of the world population to 15 percent over the next 25 years.

Shifting patterns of change
Two major pattern shifts can be identified as a result of these demographic changes: increased urbanization and immigration. Predictably, the effects will be most pronounced in those regions that are both least developed and experiencing the highest rate of population growth.

Rapid urbanization is accelerating in many developing countries. In China, for example, millions of people have left rural areas for the rapidly developing economic zones in urban centers such as Shanghai and Hong Kong. Managing these new population flows and the megacities that result will strain the resources of these countries and others.

Two drivers for the aging of world population

![Graph showing declining fertility rate and increasing life expectancy](image)

*Figure 2. Declining fertility and longer life expectancy will mean a smaller potential work force.*

*Source: U.S. Bureau of the Census*
Likewise, new migration and immigration patterns are likely to have a significant toll on the less-developed countries. According to the National Intelligence Council, immigrants (both legal and illegal) account for more than 15 percent of the population in more than 50 countries. Immigration from countries where population growth fuels unemployment will likely increase. It is also likely, however, that the growth rates in these countries will exceed the rate at which immigrants are absorbed into the economies of developed countries. This scenario will result in stricter immigration laws and more border patrols, which in turn will yield an increase in the number of illegal aliens. Another challenge facing developing countries is the task of keeping their best-educated and most productive workers from relocating to other countries — a process known as brain drain.

Countries must weigh the downside of these challenges against the potential benefits of immigration, which can relieve problems created by a disproportionately large elderly population. At a time of declining birth rates in Western societies, developed countries such as the United States, Canada, Australia, and New Zealand have maintained their proportionate share of population through relatively open immigration policies. Countries with less-developed economies in addition to a large percentage of aging workers will need to adapt their immigration policies to maintain a productive working-age population.

Similarly, the trends toward urbanization and immigration will change the labor supply and demand. Businesses must anticipate how countries will manage these changes and tailor their services and operations accordingly in order to gain competitive advantage and exploit the different market conditions surfacing in various parts of the world.

The age factor
Of all the dimensions of the global tectonic force of population change, perhaps none will have a greater impact than those related to age. As noted previously, the graying of humanity is already taking its toll. Of all the countries in the world, Japan has the highest proportion of elderly citizens relative to its working population. By 2025, the elderly are expected to account for one-third of Japan’s adult population; by mid-century, its work-
Population density

- World average: 43 people per square kilometer
- United States: 30

10 most densely populated sovereignties:
1. Monaco 16,620 people per square kilometer
2. Singapore 6,389
3. Vatican City 2,093
4. Malta 1,261
5. Maldives 1,163
6. Bahrain 1,035
7. Bangladesh 1,002
8. Barbados 647
9. Republic of China 636
10. Nauru 603


As the Select Panel for the Promotion of Child Health said in 1981, “Children are one-third of our population and all of our future.” While this is certainly true, the trends evident from this global tectonic indicate that we need to think in broader terms. Between the present and the future, the reality is that longer lives, declining fertility, shifting social patterns, and wider stratifications will combine to translate into a fundamentally altered business environment across the world for current generations and those that will follow.