China’s Demographic Destiny and Its Economic Implications

POPULATION CHANGES WILL IMPACT CHINA’S LONG-TERM ECONOMIC GROWTH AND GLOBAL COMPETITIVENESS.

By Cliff Waldman

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China appears to be at the edge of an historic demographic transition, setting the country on a path to grow old before it becomes prosperous. This paper presents a detailed picture of the current population dynamic and analyzes the implications for economic prospects. The results indicate that China is not yet at the stage of development where population changes matter a great deal for economic growth. But when that time comes, perhaps in a decade or so, demographic changes will have a profound influence not only on economic growth but on China’s global competitiveness.

Population dynamics in general and aging in particular have become global economic issues. At a Federal Reserve Bank of Kansas City symposium on global demographic change, a paper presented by Bloom and Canning (2004), two researchers from the Harvard School of Public Health, offered a number of daunting facts. The segment of the global population that is age 60-and-older is rising sharply both in percentage terms and absolute numbers, with the expectation that it will surpass one billion within two decades. Moreover, the population age 80 and over is projected to increase at an annual rate of 3.4 percent from 2000 to 2050, corresponding to an increase from one percent to four percent of the global population.

This aging phenomenon, it is believed, will be most rapid in Western Europe, the United States, and Japan. Virtually all of the projected increase in world population through 2050 will occur among today’s lower- and middle-income countries. China, however, might be one important exception.

As the world’s most populous country, whose rapid economic growth and stellar foreign direct investment have turned it into an emerging economic superpower, China appears to be at the edge of its own historic population transition. As noted in a recent paper published by the Center for Strategic and International Studies (CSIS) in Washington, DC (Jackson and Howe, 2004), the United Nations (UN) projects that the share of China’s population...
age 60-and-over will rise to 28 percent by 2040 from 11 percent in 2004. As the authors point out, by 2040, assuming current demographic trends continue, there will be 397 million Chinese citizens who are in the 60 and older age cohort, more than the total current populations of France, Germany, Italy, Japan, and the United Kingdom, combined.

A number of authors have commented on the Chinese demographic transition as it relates to pension policy. The CSIS study, for example, points out that without pension reform, China will “soon have tens of millions of indigent elders who lack nearby families, pensions, and access to health care” (Jackson and Howe, 2004, p. 27). But the more fundamental question, one that should be considered before any analysis of the pension issue, is the impact of the demographic dynamic on long-term economic growth. The economic growth impact of population changes can dramatically affect pension policy and pension financial status. Further, given China’s widening income distribution and bleak job market, the consequences of a structural, long-term slowdown in economic growth, should that occur, could be significant not only from an economic perspective but for its social and political consequences, as well.

This paper is part of an emerging literature on China’s demographic transition, presenting a detailed picture of the current population dynamic and considering the implications for long-term economic growth. The next section reviews recent literature on the demographic-economic nexus and proposes a dynamic paradigm for analyzing the relationship.

The third section of the paper reviews recent demographic trends from three vantage points. First, I present data for a number of aggregate population variables in order to assess the general trend in population growth and age distribution, two variables that will be shown to have significant consequences for savings, labor supply, and economic development. Subsequently, I consider China’s population dynamic on a regional level in order to assess the demographic influence on the distribution of labor supply, an important variable in China’s labor market development that will be shown to be of consequence for the demographic-economic relationship. In the final part of this section, I focus on the population dynamic in a global context by comparing China to a sample of countries chosen for noteworthy comparative characteristics, such as geographic and/or economic proximities. This is done to assess the influence of population dynamics on China’s global competitiveness, itself a key aspect of long-term economic growth.

In the fourth section, I consolidate the conclusions from the third section in order to assess China’s broad demographic direction. In the fifth section, I apply the paradigm proposed in the next section to offer conclusions regarding the economic implications of China’s demographic path. The final section presents a brief overview of a number of policy issues that arise from the analysis.

**The Relationship between Population Dynamics and Economic Growth**

**Recent Research on the Demographic-Economic Growth Relationship**

Experts generally agree that the normal course of demographic transition is the path from the high fertility rate, high mortality rate profile that is normally seen in countries that are in the early or middle states of economic development to the low fertility rate, low mortality rate profile that is characteristic of industrialized nations. Many demographers view fertility rate declines and mortality rate declines as part of a unified dynamic. Kalemli-Ozcan (2002), among others, has concluded that fertility is positively impacted by high offspring mortality rates, a link that will be explored in the current study.

Other catalysts for fertility declines include growing levels of education and labor market opportunities for women, which reduce desired fertility as they are able to use their time for productive activities other than child rearing. Some experts, in fact, argue that demographic transitions have often been triggered by increasing returns from educational investment. They point to the significant increase in educational investment that has immediately preceded the fertility decline in most parts of the developed world.

The conceptual model that links demographic change to economic growth is in a state of transition. The long-held belief that there is little or no relationship between population dynamics and economic development is losing credence in recent literature. Long-term demographic trends are now thought to have pronounced impacts on economic growth through a number of channels. These include labor supply, savings behavior, and productivity changes. Darrat and Al-Yousif (1999) tested for the intertemporal relationship between population growth and economic development in a sample of 20 developing countries, which were chosen for their varied stages of economic development as well as their population densities and institutional architecture. The sample included China as well as India, Brazil, and Mexico. The authors asserted that the statistical methods used in previous studies were inadequate because they were inappropriate for capturing the potentially long-run nature of the relationship. They assert that such methods as Granger-causality and co-integration tests are the ones appropriate for the task.