

# Global Demographic Change: Economic Impacts and Policy Challenges— An Introduction to the Bank’s 2004 Economic Symposium

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The world economy is undergoing a major demographic transformation. Over the next several decades, the combined effects of increased life expectancy and lower fertility will lead to slower population growth and significant population aging across the globe. These trends are expected to play out very differently across countries, however, as some countries are well along in the aging process while others are at the beginning. Moreover, as global linkages in the world economy expand, the effects of demographic changes in one country are increasingly likely to be transmitted internationally.

These demographic forces are of sufficient magnitude that they may have important implications for economic growth and well-being. Consequently, policymakers around the world need to understand the dimensions of these changes and their economic and social repercussions. Where necessary, institutions and policies may need to be altered to ensure that these demographic changes can be channeled in ways that enhance rather than diminish economic performance.

To promote greater understanding of these demographic forces and the policy challenges they pose, the Federal Reserve Bank of Kansas City sponsored a symposium, “Global Demographic Change:

Economic Impacts and Policy Challenges,” at Jackson Hole, Wyoming, on August 26-28, 2004. The symposium brought together a distinguished group of central bankers, economists, and other policymakers to discuss and debate this important topic. This introduction provides a brief overview of the issues raised at the symposium and summarizes some of the main themes to emerge from the presentations and discussion.

### **Dimensions of demographic changes**

Current demographic projections suggest important changes in the size and structure of the world’s population over the course of the 21st century. After many decades of rapid expansion, world population growth is projected to slow dramatically. At the same time, many countries around the world are expected to experience substantial aging of their populations. Underlying both of these trends are two key demographic changes: an increase in life expectancy and a reduction in fertility. Because of the asynchronous nature of these two changes, countries first experience a rapid rise in population as life expectancy rises while birth rates remain high. Then, population growth slows as fertility declines. Over time, with fewer births and longer life spans, the overall age of the population rises. This pattern has been termed “the demographic transition.”

While all countries will experience these demographic changes, there are important differences in their timetable across countries. Many developed countries are far along in their demographic transition. These countries will see a significant increase in their elderly populations over the next several decades. In contrast, many developing countries are at an earlier stage in their transition because fertility declines are more recent. Over the next few decades, these countries are likely to experience an increase in their working age populations followed later by a rise in their elderly populations.

Even within the broad groups of developed and developing countries, however, there are likely to be important differences. For example, among developed countries, Japan, Korea, and some European coun-

tries will experience more rapid population aging than the United States. And, among developing countries, China will experience population aging sooner than India and many other Asian countries.

In assessing these broad population trends and their consequences, it is important to keep in mind that they are long-term projections based on assumptions about future fertility rates and changes in longevity. In particular, to the extent these projections overestimate future birth rates or underestimate future increases in longevity, they may understate the degree of population aging that is likely to be experienced in coming years.

### **Economic and social consequences of demographic changes**

Changes in the overall size of the population and its age structure can affect the economy in a number of ways. One important channel is through changes in the supply of labor. Countries that are far along in the demographic transition are likely to experience slower labor force growth or even a decline in labor supply as the existing labor force retires and is replaced by fewer new workers. Unless these effects are offset by increased productivity or increased immigration, these countries may experience slower economic growth. In contrast, countries early in the demographic transition are likely to experience an increased working age population—the so-called “demographic dividend.” To the extent these workers can be productively employed, growth prospects may be enhanced in these countries.

Changes in the age structure of the population may also have important “life-cycle” effects. Because consumption and savings decisions vary over the life cycle, large changes in the age structure of the population may affect aggregate savings and wealth holdings. In particular, a large increase in the elderly population could lead to a reduced demand for financial assets or changes in the composition of asset holdings with potential effects on asset prices and interest rates.

It is also important to recognize that these demographic changes are occurring in a world in which economic and financial linkages among

countries are growing. Because countries are experiencing their demographic transition at different times, some of the domestic economic effects of these demographic changes may spill over to other countries. Thus, there is the potential for additional economic effects through changes in exchange rates and flows of goods, labor, and capital between countries.

Many participants emphasized the degree of uncertainty involved in calculating the economic effects of these demographic changes. Whether these effects are quantitatively important and whether they are likely to help or hurt individual countries are questions that are extremely difficult to answer. These uncertainties are partly due to the lack of adequate models to analyze the complex interactions between economic and demographic variables. It is also difficult to draw inference from historical data given the paucity of historical experience with large-scale population aging.

Beyond economic effects, these demographic changes may also have implications for broader social issues. For example, increased emigration from countries with a growing working age population to countries with a shrinking labor force may or may not be beneficial to the countries involved. Receiving countries may value additional workers but have difficulty absorbing a large number of immigrants with different cultural backgrounds. Similarly, sending countries may reduce an excess supply of labor but only by exporting their most educated and productive workers. More generally, symposium participants expressed the view that population aging will require countries to adopt new perspectives on many social issues and may also necessitate policy and institutional changes to minimize any adverse economic and social repercussions.

### **Key policy issues**

These demographic changes raise a number of important public policy issues of concern to both developed and developing countries. The issue that received most attention at the symposium was the fiscal consequences of population aging. In many countries pension

and health care systems are largely unfunded; that is, current expenditures are financed by current tax receipts. A “pay-as-you-go” pension or health care system is particularly vulnerable to population aging because a smaller workforce must support a growing number of program recipients. Some countries have redesigned or are in the process of redesigning their pension systems to deal with this problem, but many have far to go. In addition, few countries have come to terms with the potentially larger issue of health care.

While these issues are of immediate concern to developed countries, they also pose a serious challenge to policymakers in developing countries. Developing countries have somewhat more time to make changes because they are at the beginning of the demographic transition. However, many are handicapped in their ability to meet the needed adjustments by an already weak fiscal position.

A second public policy issue discussed at the symposium is the role of immigration/emigration as a possible solution to some of the economic problems caused by population aging. In principle, labor might flow from developing countries to developed countries easing the demographic transition for both groups. For example, if developing countries cannot fully employ their expanding workforce, these workers might migrate to developed countries to augment their shrinking labor forces and help finance pension and health care benefits for an expanding elderly population. Because immigration is highly restricted by most countries, however, these flows would only occur if receiving countries altered current immigration laws. Symposium participants discussed some of the pros and cons of increased immigration and noted the difficulty of assessing the resulting economic costs and benefits to the sending and receiving countries.

A third policy issue that received attention at the symposium was how developing countries might utilize their demographic dividend to spur economic growth and development. Discussion focused on the lessons developing countries might learn from countries that had previously experienced a demographic dividend. Generally speaking, countries with good macroeconomic policies, strong institutions, and

greater openness to the world economy seem to have been more successful at utilizing the demographic dividend than countries without these characteristics.

### **General conclusions**

While the discussion at the symposium covered a wide range of topics, there was general agreement on several important issues. First, participants emphasized that countries need to address the economic and social consequences of population aging sooner rather than later. In the case of developed countries, there was consensus that policies needed to be aimed at increasing the labor force participation both of older workers and of other labor market groups whose participation rates are low. This can be done partly by increasing the retirement age and partly by removing incentives that inhibit full labor force participation.

Second, immigration/emigration is not a panacea for most developed countries, and it could have very negative effects on developing countries if the best-educated and most productive workers leave for better job prospects elsewhere. At best, immigration may provide a partial solution for some countries, such as the United States, that have been open to immigration historically.

Third, the effects of population aging on asset markets are more likely to be reflected in changing demands for different types of financial assets and increased demand for insurance-type products rather than a “melt-down” in asset prices generally. Additionally, to the extent that developing countries can use pension reform to stimulate the growth of domestic financial markets, such reform may enhance the growth prospects of these countries.