COUNTRY BRIEF
KENYA

Boosting Kenya's Demographic Dividend

Between 2000 and 2012, economic growth in Kenya fluctuated from less than 1 percent to nearly 7 percent a year. The high level of volatility was linked to repeated internal and external shocks, including severe drought, violence following the 2007 presidential elections, rising oil prices, and economic decline among Kenya's European trading partners.

A demographic dividend, based on falling fertility, could help boost Kenya's economy. Indeed, between 1975 and 2000, the relative size of Kenya's child population went down, and the proportion of working-age adults went up, providing an important opportunity for economic growth. Over the past decade, however, the pace of Kenya's fertility decline has slowed down considerably, and the share of the working-age population has barely expanded.

If the current pace of fertility decline accelerates, and if Kenya's young workers can find productive employment to support their families and save for the future, then Kenya will enjoy a demographic dividend, raising the current standard of living and stimulating economic growth. Eventually, if resources generated by this first demographic dividend are invested in physical capital and in children's health and education, then Kenya may achieve a second demographic dividend that will boost economic growth over a longer period.

The magnitude of the first dividend depends largely on the speed of fertility decline and on whether Kenya's large population of young adults can earn an adequate labor income. The magnitude of the second dividend depends largely on how the savings made possible during the first dividend are invested. What is important is to make the most productive use of the first dividend, both to raise current standards of living and to increase investment in human and physical capital that will lead to permanently higher economic growth.

The economic lifecycle

The changes in population age structure that accompany fertility decline are important because people earn income and consume at very different levels over the course of their lives. Working-age adults, as a group, produce more through their labor than they consume, while children and the elderly consume more than they produce. Within this broad pattern, the economic lifecycle varies according to the structure of the economy, the level of development, public policy, and many other factors.

Understanding the economic lifecycle is essential because its basic features determine the effects of population age structure on economic growth.

The National Transfer Accounts (NTA) project describes the economic lifecycle by measuring consumption and labor income at every stage of life. In Kenya, as in other countries, individual-level consumption exceeds labor income for two long periods at young and old ages (Figure 1 left). These bracket a period in which labor income exceeds consumption. In 1994, Kenyans, on average, earned more than they consumed for 35 year—from age 24 to age 59.

When the age structure of Kenya's population is combined with this individual-level pattern to estimate total consumption and labor income at each age, the enormous size of consumption for the young age group is revealed (Figure 1 right). This is not because Kenyan children have high consumption, but rather because there are so many children.

The balance between workers and consumers

The NTA project is compiling data and developing methodologies to measure shifts in the balance between workers and consumers due to changes in population age structure. NTA uses comprehensive estimates of labor income that include earnings of individual employees, return to labor in family businesses, income from self-employment, and other types of income. One effective worker is defined as a person earning the average labor income of a

Figure 1. Per-capita (left) and aggregate (right) labor income and consumption by age in Kenya, 1994.
Source: NTA data.

person in the prime working ages 30–49. Those in each one-year age group are counted as more or less than one effective worker based on their average labor income relative to the average for prime-age workers.

In most NTA member countries, the effective number of workers is about half of the population, but in Kenya, the effective number of workers is only one-third. This is partly because the Kenyan population is dominated by children and partly because labor income for young Kenyans tends to be low.

The effective number of consumers is calculated similarly by comparing the average per capita consumption at each age with average consumption at ages 30–49. Consumption is defined to include both private and public consumption.

In most NTA member countries, the effective number of consumers is about equal to the population. Kenyan consumers are concentrated at young ages, however, and children tend to consume less than prime-age adults. In 2010, the effective number of consumers in Kenya was 82 percent of the population.

The effective number of workers per consumer is the support ratio. For example, a support ratio of 0.5 means that each worker is, on average, supporting himself or herself plus one other consumer. If the support ratio increases, each effective worker is supporting fewer effective consumers.
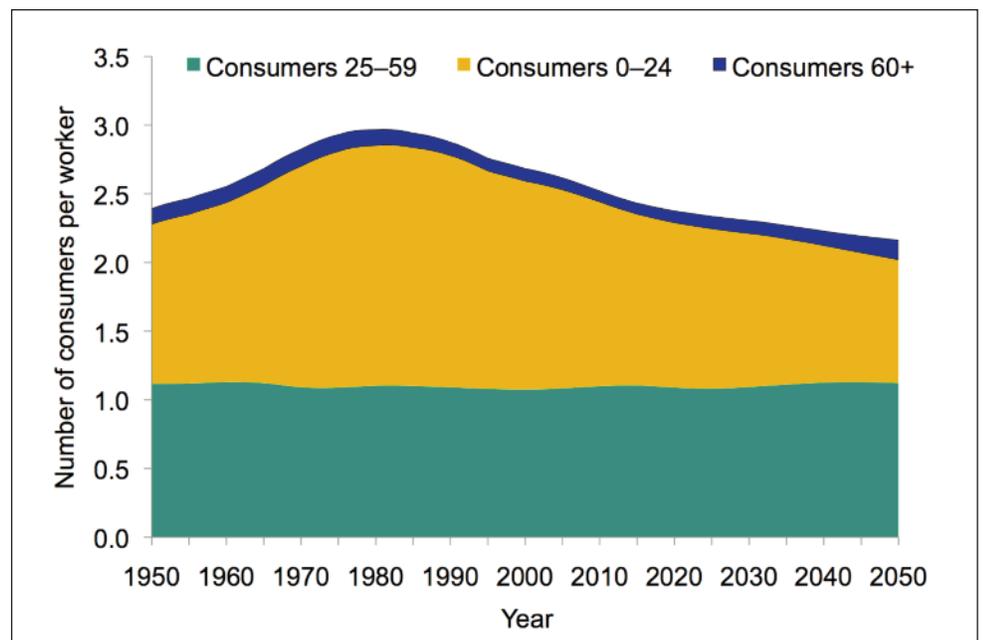
This frees up resources that can be used to raise per capita consumption or increase saving and investment or both.

Given the large proportion of dependent children in the population, Kenya has one of the lowest support ratios in the world—at 0.40. But the trend is encouraging. Kenya's support ratio improved between 2005 and 2010 at an annual rate of 0.75 percent, one of the highest growth rates of any NTA member country.

Generating the first and second demographic dividend

Reviving Kenya's fertility decline
Kenya's potential for a demographic dividend is directly linked to a decline in birth rates that allows the population's age structure to shift away from a pattern dominated by large numbers of dependent children. The support ratio in Kenya started improving in 1981, but from a very low

Figure 2. Changes in the number of consumers (children, working-age adults, and the elderly) per worker, in Kenya, 1950–2050.
Source: Calculated from NTA data; population estimates and projections from United Nations 2012, medium-fertility variant.
Note: The values for effective number of workers and effective number of consumers are based on population estimates for 2010 and estimates of consumption and labor income by age for 1994.

starting point, linked to earlier levels of fertility that were extraordinarily high.

The total fertility rate peaked between 1960 and 1970 at 8.1 children per woman (United Nations 2012). The next 25 years saw rapid fertility decline, down to 5.1 between 1995 and 2000. Since then, fertility has declined much more slowly, reaching 4.6 between 2010 and 2015.
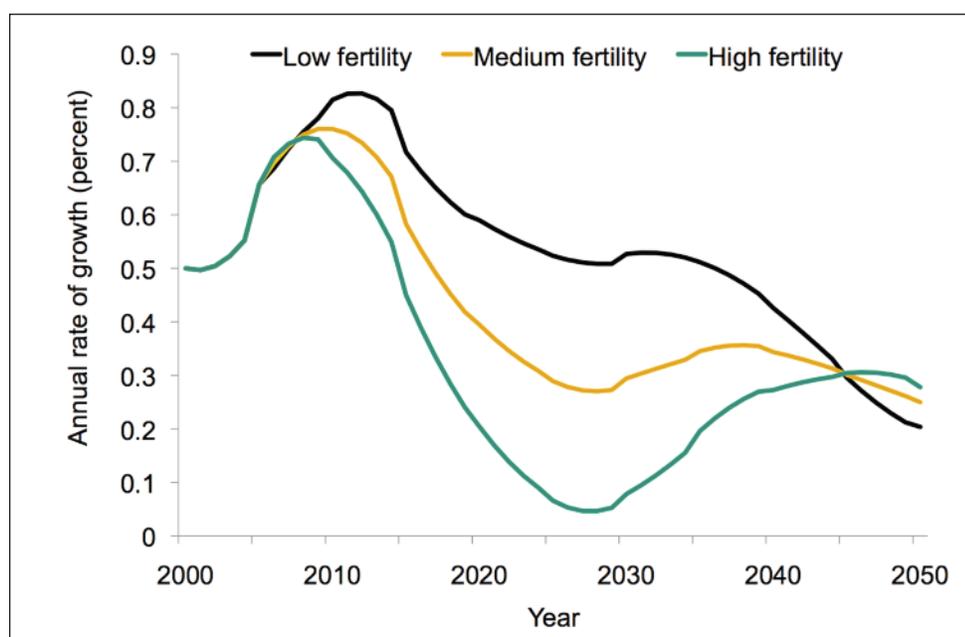
In 2010, each worker in Kenya was supporting an average of 2.5 consumers, down significantly from a peak of 3.0 from 1977 to 1984 (Figure 2). Under the United Nation's medium-fertility variant, fertility in Kenya will continue to decline slowly over the next 40 years. The proportion of children in the population will remain large and the proportion of elderly will expand slightly. In 2050, each worker is projected to be supporting 2.2 consumers.

Kenya could enjoy a greater demographic dividend if fertility continues to decline at the rapid pace achieved in the past. Projections based on the United Nations low-fertility variant show a boost to economic growth of more than half a percentage point a year through 2030. If fertility follows the high variant, the demographic dividend is still positive but declines rapidly, reaching nearly zero by 2030 (Figure 3).
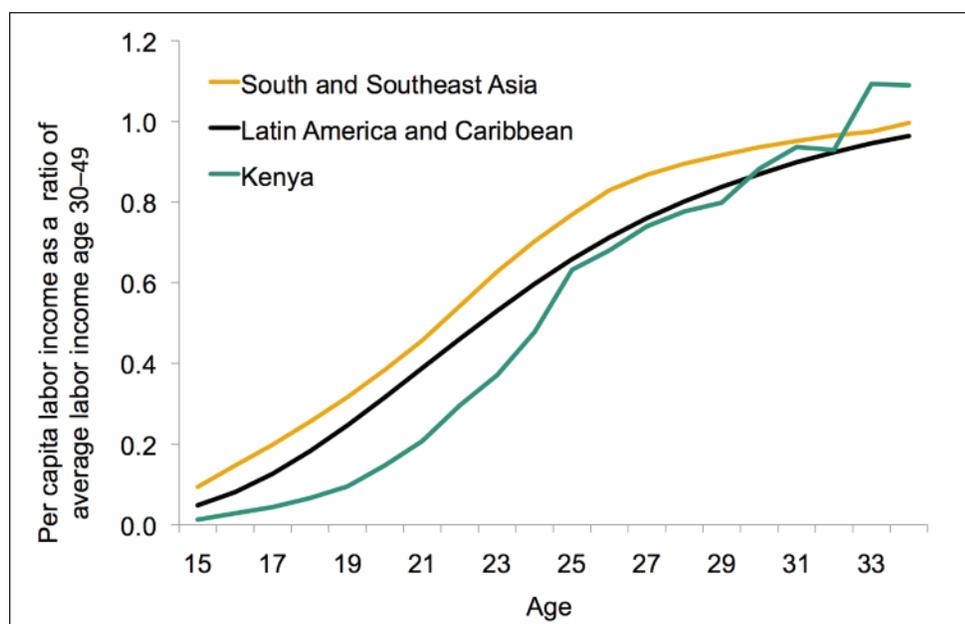
Expanding earning opportunities for young adults

Apart from population age structure, the single most important factor that determines the support ratio in lower-income countries —and the potential for a demographic dividend—is the age profile of labor income. In particular, the lowest support ratios are found in countries where young adults have high unemployment and low labor income (Mason and Lee 2012). A central component of efforts to improve employment for young adults is to increase opportunities for young women (Bloom et al. 2009).

NTA data show that Kenyans under age 30 earn less, compared with the labor income of prime-age adults, than their counterparts in Asia or Latin America (Figure 4), but their labor income compares favorably with levels in other African countries. On average, they begin earning more than they consume

Figure 3. Annual rate of growth of the support ratio in Kenya based on United Nations low-, medium, and high-fertility variants, 2010–2050.

Source: Calculated from NTA data; population estimates and projections from United Nations 2012.

Figure 4. Per capita labor income at age 15–34 in Kenya compared with values for NTA member countries in South and Southeast Asia and Latin America and the Caribbean.

Source: Calculated from NTA data.

Note: Values are expressed as ratios to average per capita labor income at age 30–49. For a list of NTA member countries, see www.ntaccounts.org.

at age 24 (Figure 1 left). Young Nigerians only reach this threshold at age 32 and young South Africans at age 30.

Because young adults are such a large group—36 percent of the total population in 2010—their labor income is critical if Kenya is to achieve a robust demographic dividend. But well-paying jobs are not

increasing fast enough for this young population. According to the Kenya National Bureau of Statistics (quoted in World Bank 2012), modern-sector wage jobs are increasing by about 50,000 a year, while the working-age population is increasing by about 800,000. Because of the slow pace of job creation in the modern sector,

particular emphasis should be directed toward raising productivity in agriculture and in the informal sector where many young Kenyans are likely to be employed.

Boosting support for child health and education

The demographic dividend frees up resources that can be invested in the health and education of children. As the children grow older and enter the labor force, these earlier investments will have a favorable impact on the economy by increasing worker productivity, contributing to a second demographic dividend.

NTA data show that, in fact, most countries are taking advantage of fertility decline to increase spending on child health and education (Lee and Mason 2010) (Figure 5). As of 1994, however, human capital spending in Kenya was relatively low. More recent data suggest that the level of spending is increasing, although the bulk of the increase appears to be in private spending. Relatively modest public spending leaves young people dependent on support from their families, which means that children from poor families are particularly disadvantaged.

Investing for a second demographic dividend

A first demographic dividend can potentially increase the resources available to save and invest. Longer life expectancy also provides an incentive to save for old age.

Today, the elderly in Kenya are likely to work well into old age, but their labor income tends to be low. NTA estimates show that Kenyans, on average, begin consuming more than they earn at age 60, and the gap only widens as they grow older. To fill the gap between what they need and what they earn, elderly Kenyans rely on their families and on the assets they accumulated earlier in life. Government programs play a small role.

Analysis of current consumption levels among the elderly suggests that Kenya's workers would need to set aside 6.2 percent of labor income every year if they are to meet all their consumption needs in old age out of their own savings (Mason and Lee 2012). Over the next 40 years, this required level of saving is expected to rise to 10.9 percent of annual labor income.
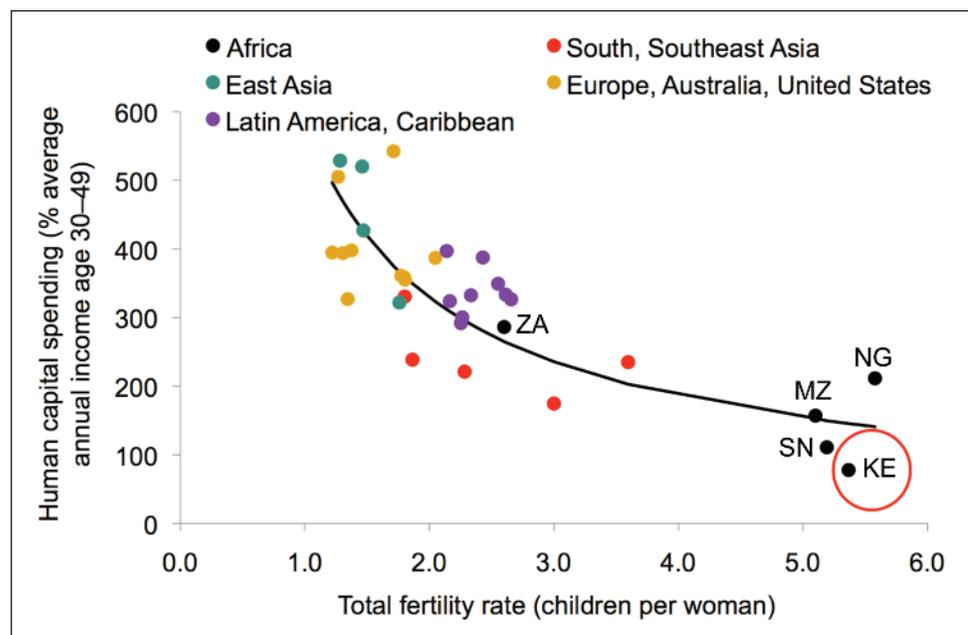
Public pension and healthcare coverage for the elderly is very likely to expand in Kenya, but the emphasis should be on

helping individuals accumulate assets that reduce their dependence on families or taxpayers. Asset accumulation and investment also promote economic growth. Public programs should provide some basic level of security, but they should not undermine individual efforts and they should be sustainable in the long term as elderly populations expand.

Priorities for policymakers include labor laws that discourage discrimination against older workers and extend or eliminate mandatory retirement ages. In addition, governments can play an important role by creating an economic environment that helps working-age populations accumulate wealth and establish some degree of financial independence.

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Figure 5. Tradeoff between human-capital spending and fertility.

Source: Update of estimates presented in Lee and Mason (2010).

Note: Lifetime human-capital spending per child is a synthetic cohort measure constructed by cumulating per capita health spending from ages 0–17 and per capita education spending from ages 3–26. Values are expressed as a percentage of the average annual labor income of adults age 30–49 in each country. African countries are Kenya (KE), Mozambique (MZ), Nigeria (NG), Senegal (SN), and South Africa (ZA).