NATIONAL TRANSFER ACCOUNTS

Understanding the generational economy

COUNTRY BRIEF

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Capturing South Africa's Demographic Dividend

South Africa stands at a crucial point in its economic development, with significant challenges of poverty and inequality. Annual growth of per capita gross domestic product (GDP) averaged only 1.8 percent from 1994 to 2008 (South African Reserve Bank 2013). While per capita incomes have been rising, unemployment remains stubbornly high—estimated at 25 percent at the end of 2012 (Statistics South Africa 2013)—and inequalities are stark.

In many countries, a first demographic dividend, based on falling fertility, has helped accelerate economic growth by reducing the proportion of dependent children in the population relative to the proportion of working-age adults. And indeed, fertility has fallen steadily in South Africa over the past half-century—from 6.4 births per woman in 1950–1960 to 2.4 births in 2005–2010 (United Nations 2012).

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But in addition to fertility decline, the magnitude of the first demographic dividend depends on whether a country's relatively large working-age population can earn an adequate labor income to raise living standards and to save and invest for the future. And employment and labor income remain a serious problem in South Africa, particularly for the large population of young adults.

A first dividend, if achieved, can free up resources that provide the basis for a second demographic dividend. The magnitude of the second dividend depends largely on whether the savings made possible during the first dividend are invested productively in human and physical capital, leading 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. The labor-income profile for South Africa has two distinct features (Figure 1 left). First, labor income rises relatively late. Young adults do not begin earning more than they consume until age 30. This late rise in labor income is certainly related to high unemployment rates among young South Africans.

The second feature is the rapid decline in labor income around the age of retirement. Older South Africans, on average, begin consuming more than they earn at age 60, and the gap widens very sharply over the next decades of life.

Consumption rises gradually and, for the most part, steadily, peaking for individuals in their early 50s at around 80 percent of mean labor income at age 30–49. Thereafter, consumption declines gradually throughout old age.

Combining South Africa's age structure with these per capita profiles shifts the weight of both consumption and labor income toward younger ages (Figure 1 right). The elderly population accounts for less than 5 percent of aggregate consumption, compared with 21 percent for those under age 15. This is not because a South African child consumes more than an elderly person, but rather because there are many more children than elderly in the population.

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

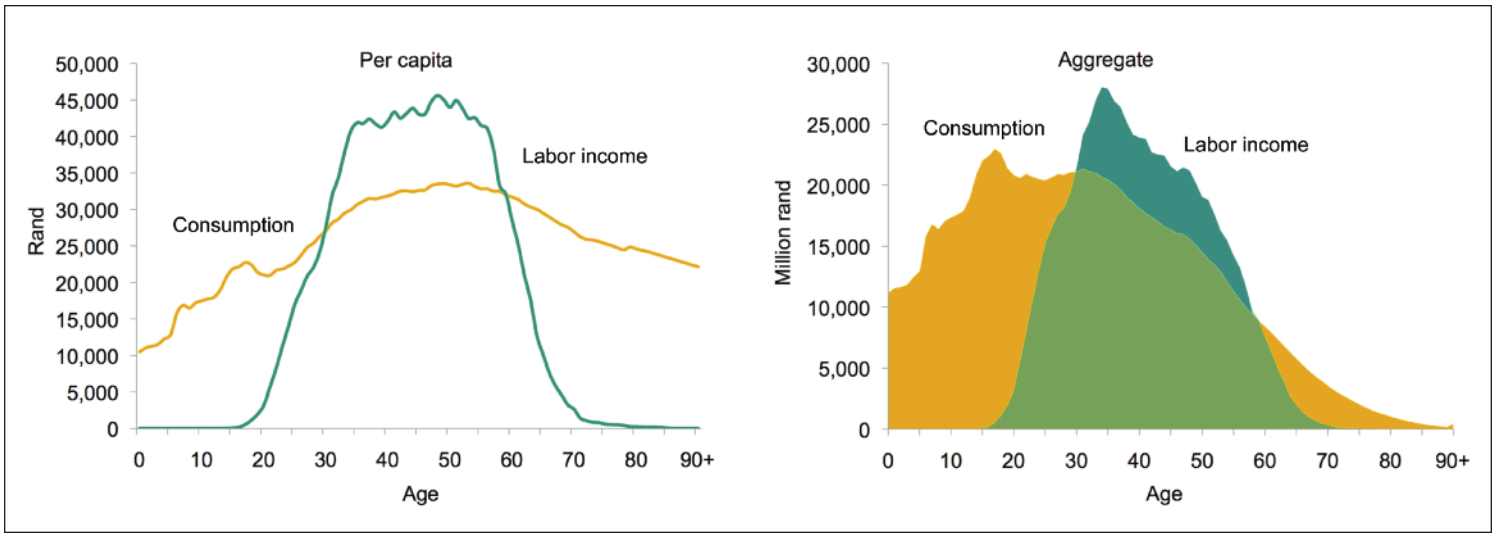

Figure 1. Per-capita and aggregate labor income and consumption by age in South Africa, 2005.

Source: NTA data.

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 someone 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 South Africa, effective workers account for only 41 percent. This is partly because the South African population includes large numbers of dependent children and partly because labor income for young South Africans 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 goods and services from the public and private sectors.

In most NTA member countries, the effective number of consumers is about equal to the population. South African consumers are concentrated at young ages, however, and children tend to consume less than prime-age adults. The elderly in South Africa also consume less than their counterparts in other NTA member countries. As a result, the number of effective consumers is only three-fourths of the population.

The ratio of effective workers to effective consumers is known as the support ratio. A higher support ratio implies that each effective worker supports a smaller number of effective consumers, freeing up resources for consumption or saving. The support ratio for South Africa in 2010 is estimated at 0.55, which is similar to the level for other NTA member countries in the World Bank's upper-middle-income category.

Capturing the first and second demographic dividends

Continued fertility decline

Demographic change in South Africa is expected to have a modest but favorable impact on economic growth over the next 40 years, with a shrinking child population compensating for an elderly population that is beginning to expand. In 2010, each worker was supporting an average of 1.8 consumers, down from a peak of 2.1 from the 1960s through the 1980s (Figure 2).

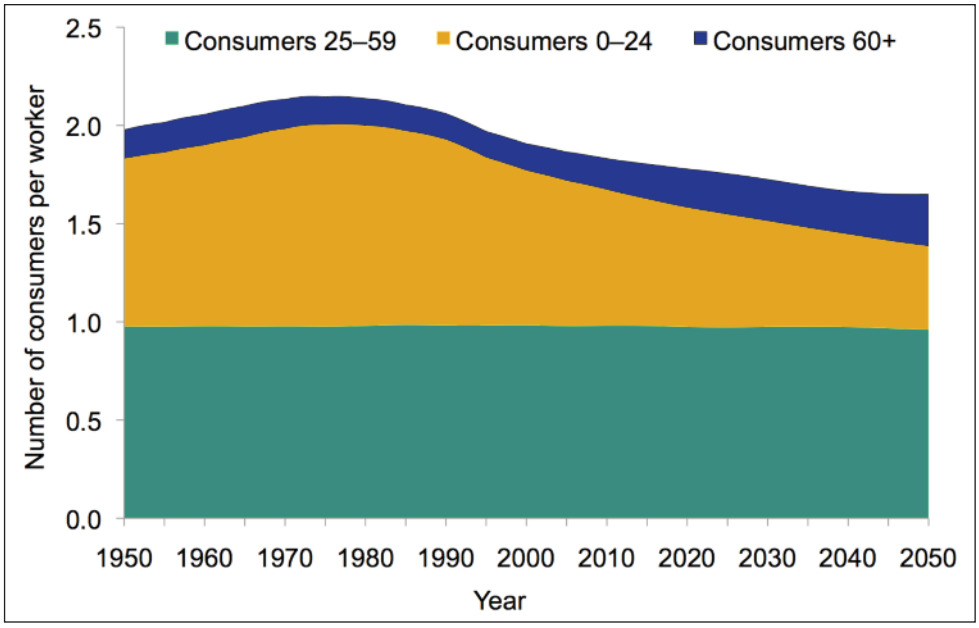

Figure 2. Changes in the number of consumers (children, working-age adults, and the elderly) per worker, in South Africa, 1950–2050.

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 2005.

Under the United Nations' medium-fertility variant, by 2050 each worker in South Africa will be supporting 1.7 consumers.

Although fertility has already dropped close to replacement level, continued fertility decline will be an important contributor to the first demographic dividend. Projections based on the United Nations' low-fertility variant result in the largest improvement in the support ratio over the next 30 years (Figure 3). The striking rise in the support ratio between 2020 and 2030 is associated with the impact of South Africa's HIV/AIDS pandemic. HIV/AIDS first depresses the support ratio by reducing the size of the working-age population but then boosts the support ratio by slowing the growth of the elderly population as the generation most affected by the pandemic reaches old age.

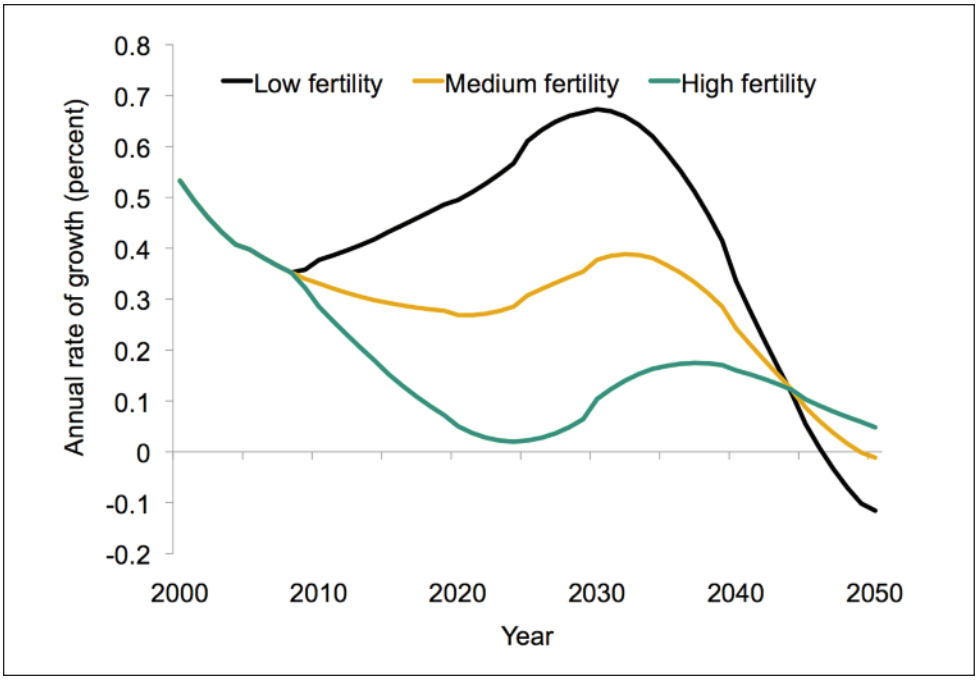

Figure 3. Estimates of the annual rate of growth of the support ratio in South Africa based on United Nations low-, medium, and high-fertility variants, 2010–2050.

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

Expanding earning opportunities for young adults

Apart from population age structure, the single most important factor that determines 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).

In South Africa, as in many other parts of the world, youth unemployment is a serious problem. In 2012, the unemployment rate was 46 percent for the 15–34-year age group, compared with 21 percent for 35–65-year-olds (Development Policy Research Unit 2012). Within the youth population, unemployment is particularly high among Africans and among women. Even when they are employed, young people are more likely than prime-age workers to have low job security and low pay (Oosthuizen 2012).

NTA data on labor income by one-year age groups show that young people in South Africa earn less, compared with the labor income of prime-age adults, than their counterparts in South and Southeast Asia or Latin America and the Caribbean

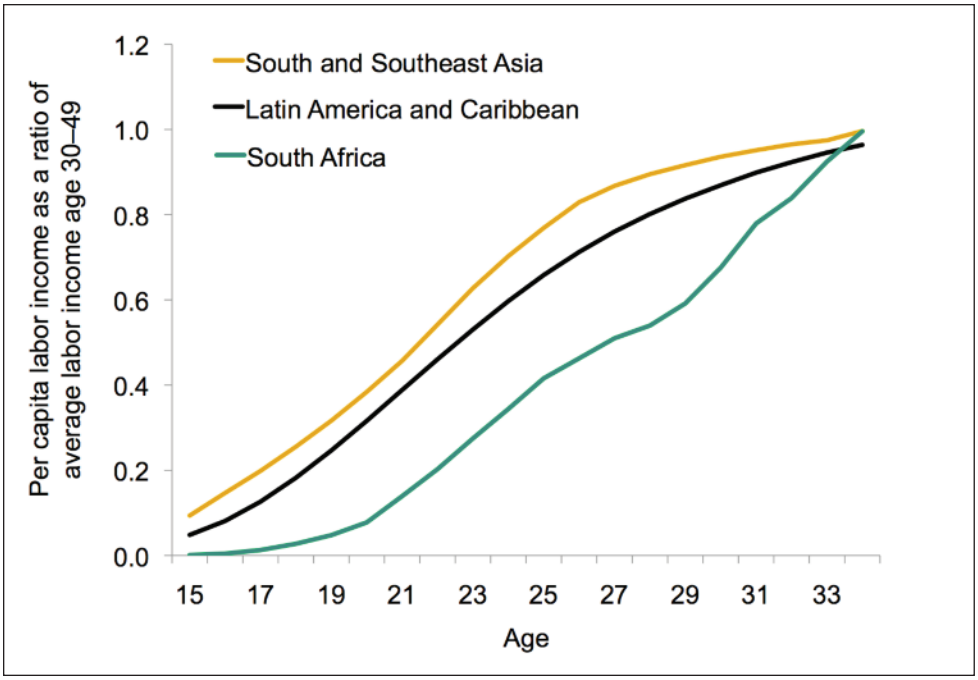

Figure 4. Per capita labor income at age 15–34 in South Africa compared with values for NTA member countries in South and Southeast Asia and Latin America and the Caribbean.

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.

(Figure 4). Because young adults are such a large group—one-third of the total population in 2010—their labor income is critical if South Africa is to achieve a robust demographic dividend.

Investing for a second demographic dividend

A second demographic dividend occurs as the population structure becomes more concentrated at older ages. Longer life

expectancy and the prospect of a significant period of retirement create a strong incentive to save. The savings accumulated by workers in anticipation of retirement may substantially raise the capital-to-GDP ratio, enhancing productivity and boosting economic growth and living standards.

Declining fertility has already enabled South Africa to raise investment in child health and education (Figure 5). As the children grow older and enter the labor force, these earlier investments should have a favourable impact on the economy by increasing worker productivity. But these gains will not be realized if a large proportion of young people, regardless of their education, fail to find productive employment.

The immediate effect of high levels of youth unemployment is to delay and shorten the period of life in which there is a surplus of income over consumption. Over the longer term, international evidence suggests that youth unemployment has a scarring effect on wages in later life. This lowering of future earnings potential may limit the ability of prime-age workers to save and invest for the future.

To improve employment opportunities and boost saving, there is a clear need for the South African government to provide a more supportive environment for the growth of private enterprise. This is particularly true given the fiscal constraints on the expansion of public-sector employment.

Growth alone, however, is not sufficient to ensure greater employment. The pursuit of a more labor-intensive growth path is essential. While the post-apartheid period has seen significant gains in young people's educational attainment, the inability of the economy to absorb new labor-market entrants in sufficient numbers has seen unemployment rates soar, even among those who have completed secondary school. Widespread unemployment, the potential wage scarring for large numbers of unemployed youth, and the possibility of weakened human capital investment (in the form of diminished education and health consumption) not only threaten South Africa's first demographic dividend, but also its second.

Recommendations from the government's New Growth Path (NGP) and National Development Plan (NDP) would help South Africa capture both a first and second demographic dividend. These include the encouragement of more labor-intensive growth, massive investment in physical infrastructure, and quality improvements in education and healthcare.

The National Treasury's gradual moves toward compulsory retirement savings are of vital importance in relation to the second dividend. This approach will help reduce reliance on state old-age grants, which will become increasingly onerous as the elderly population expands.

The NTA framework provides important insights into the flows of resources across age groups and over time and reinforces the urgency of addressing current labor-market challenges. In particular, the employment challenges confronting young people, if unresolved, will act as a significant constraint on the country's ability to capitalize on the first and second demographic dividends and, by extension, will slow down progress towards the overarching societal goals of poverty eradication and reduced inequality.

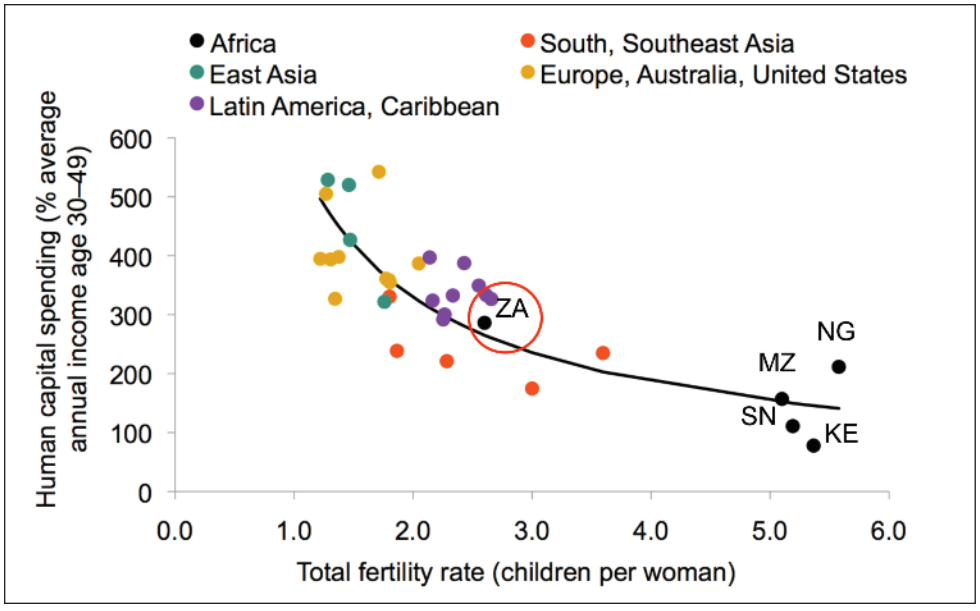

Figure 5. Tradeoff between human-capital spending and fertility.

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. To enable international comparison, the 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).

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