



# FOREVER YOUNG?

**SOCIAL POLICIES FOR A CHANGING  
POPULATION IN SOUTHERN AFRICA**

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Lucilla Maria Bruni, Jamele Rigolini and Sara Troiano





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- Ahmed, S. Amer, and Marcio Cruz. 2016. "Making the Most of Demographic Change in Southern Africa."
- Lantos, Hannah. 2015. "Emerging Health Challenges in Southern Africa."
- Margolis, David N., and Chaimaa Yassine. 2015. "Demographics and Labor Markets in Southern Africa."
- Moultrie, Tom A. 2015. "Demographic Profiles of Five Countries in Southern Africa and Implications for the Demographic Dividend."
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- Oosthuizen, Morné J. 2015. "Public Spending and Demographic Change in Southern Africa."
- Troiano, Sara. 2015. "A Life-Cycle Assessment of Social Protection Systems in Southern Africa."
- van der Berg, Servaas, and Marizanne Knoesen. 2015. "Implications of Demographic Projections for Education in the Five SACU Countries."

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# EXECUTIVE SUMMARY

Demography affects our daily lives. Consciously or not, we take into account the demographic context when making choices on employment, savings, health, and education. Parents will have fewer children if they perceive a high chance that offspring will survive young age, for example. They will invest more in their children's education and health. People will save more if they expect to live until old age themselves. For reasons like these, policymakers should consider demography if they hope to craft effective and efficient policies that can respond to the changing needs of a population. Regrettably, demography often does not receive the importance it deserves in policy making, in part because it entails changes that may not become visible for decades. But if demographic trends go ignored, opportunities may be lost, or even worse, large costs to society may accumulate.

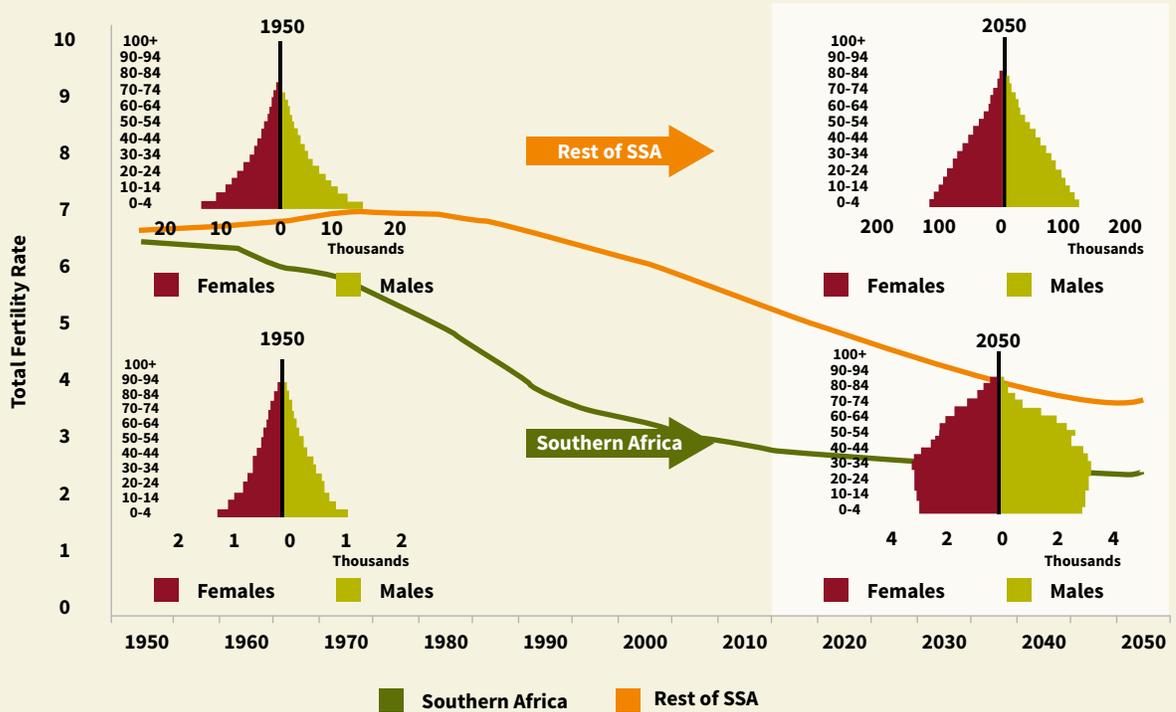
This report studies how ongoing demographic change in Southern Africa (here defined as Botswana, Lesotho, Namibia, South Africa, and Swaziland) is creating a need for new directions in social policies. Putting the right ones in place will help the five countries reap major benefits from demographic dynamics in the decades ahead and enjoy enhanced levels of well-being and prosperity.

## **A Demographic Opportunity for Southern Africa**

Southern Africa finds itself at a different demographic moment than the rest of Sub-Saharan Africa. Both mortality and fertility started decreasing much earlier and faster. These shifts lead to new population structures. The population pyramids on the right side of Figure I show that change: in 2050, Southern Africa will have a working-age population that is larger than its number of young dependents, while the opposite will hold for the rest of Sub-Saharan Africa.

Long-term simulations of the pyramids with and without the HIV/AIDS epidemic that ravaged Southern Africa suggest that the working-age population of 2050 would have been even larger in the absence of

**FIGURE I. BY 2050, THE AGE STRUCTURE IN SOUTHERN AFRICA WILL DIFFER SUBSTANTIALLY FROM THE REST OF SUB-SAHARAN AFRICA**



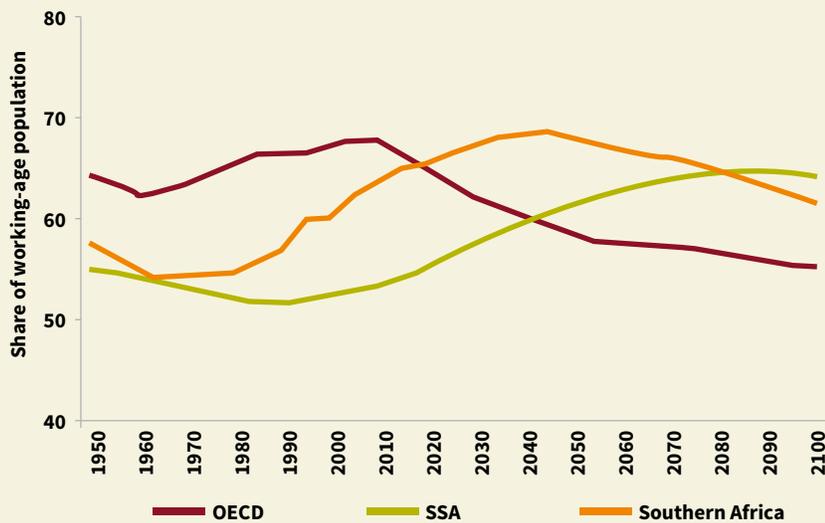
Note: "Rest of SSA" refers to the Sub-Saharan region (UN definition) excluding Southern Africa. Population pyramids are computed based on the total population by sex and age in these two sub-regions. Sub-regional total fertility rates are population-weighted averages of the single countries. Source: Authors' own elaboration based on UN World Population Prospects 2015.

the epidemic. That conclusion may cause little surprise, but what is notable is that the two pyramids look similar in shape. The clear suggestion is that the HIV/AIDS epidemic has slowed the demographic transition but by no means stopped it.

That transition is now opening up Southern Africa's "demographic window of opportunity." This is a period in which the ratio of the working-age population to the dependent-age population increases rapidly. In Southern Africa, it will reach its peak around 2050, when a full 68 percent of the five countries' people will be of working age.

The window is opening in Southern Africa at a time when it is closing in many middle-income countries, especially in East Asia. It is projected to remain open for an unusually long time, ranging between 43 years in Swaziland and 53 years in South Africa. The window also marks a crucial moment of transition from

**FIGURE II. THE SHARE OF WORKING-AGE POPULATION IN SOUTHERN AFRICA WILL PEAK BETWEEN 2040 AND 2050**



Note: Trends represent population-weighted averages. Source: Authors' own elaboration based on UN World Population Prospects 2015.

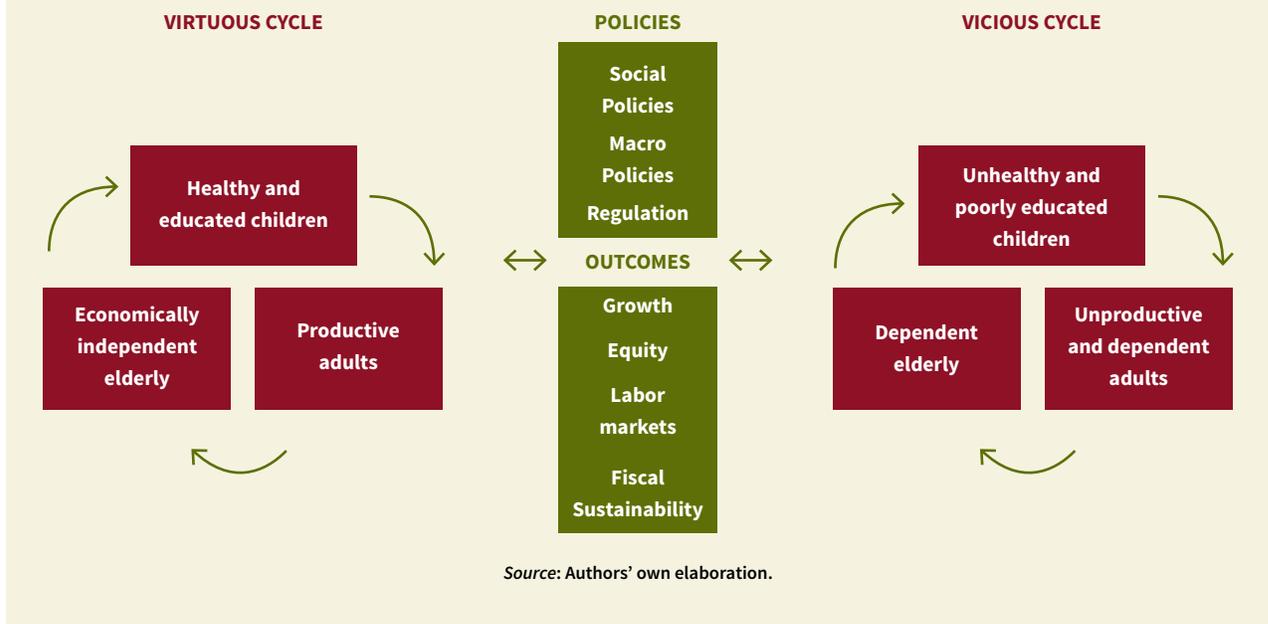
a young society with a dependent population mostly consisting of children and youth (defined here as people aged 15-24), to a slowly aging society in which dependents will increasingly be older people.

But the key phenomenon for the present report is the rising share of the working-age population (Figure II). If a greater share of people in an economy is working, the result will be an increase in output per capita. Averaged out, that can mean a boost of income for everyone in a society. The literature calls this the *first demographic dividend*. Later on, with savings and investment heading upward, society enjoys the *second demographic dividend* of greater incomes and economic activity.

### **The Demographic Dividend is Not a Given: Policies Matter**

The challenge that Southern Africa faces today is this: While the demographic transition is inevitable, a positive outcome from it is not. The quality of the countries' social policies<sup>1</sup> going forward will help determine if the transition brings broad social and economic benefits, or instead exerts a drag on both growth and equity. The transition will amplify the effects of good as well as bad policies, as Figure III illustrates.

**FIGURE III: THE DEMOGRAPHIC TRANSITION CAN AMPLIFY THE EFFECTS OF GOOD BUT ALSO BAD POLICIES**



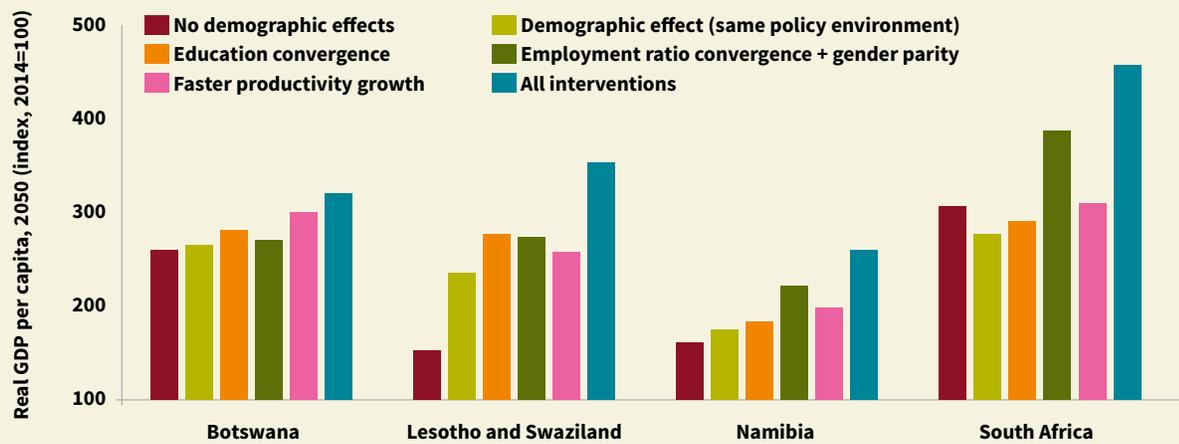
Good social policies can help generate virtuous cycles of equity and productivity. Good policies mean that children are more likely to be healthy and educated and to grow up to be productive adults. With access to quality jobs and social services, they will fulfill their earning potential, and, aided by effective pension policies, they will save enough for a comfortable life in old age. These productive and educated adults in turn will be more likely to raise healthy and educated children. An intergenerational virtuous cycle of social welfare takes hold.

On the other hand, inadequate policies put children at risk of being unhealthy and poorly educated. When they grow up, they will have less chance of finding stable and well-paid employment. They will be less able to raise healthy and educated children. The vicious cycle of poverty sets in.

Virtuous or vicious, the individual life cycles of Southern Africa's people will have implications in terms of aggregate growth, equity, the functioning of labor markets, and fiscal sustainability. For that reason, well crafted social policies are needed at every stage of life in order to help countries hop onto the virtuous cycle.

The contrasting experiences of Western Europe, the United States, and East Asia on the one hand, and Eastern Europe on the other show that policies matter in reaping the demographic dividend. The former took full advantage of the demographic dividend by investing in education and pursuing economic policies that focused on manufacturing and trade. The latter, however, failed to put the right policies

**FIGURE IV: INCLUSIVE GROWTH POLICIES WOULD BOOST GAINS FROM THE DEMOGRAPHIC TRANSITION**



Note: See Chapter 3 for a detailed definition of inclusive growth policies. Source: Authors' own elaboration based on Ahmed and Cruz 2015.

in place at the onset of the transition. As a result, the largest population cohorts that Eastern European countries will ever experience are currently close to retirement age, having never achieved their full potential in work. Governments are struggling to sustain these large numbers of old-age citizens without the increase in output they might have achieved in their working years.

Southern Africa's task now is to avoid this trap. The cold fact is that if the current social and economic environment does not change, it may be caught in it. Yet this picture could change dramatically with the help of strategic "inclusive policies" tailored to the education and labor market success of the new population structure (Figure IV). Simulations find that improving educational attainment could raise GDP per capita in Swaziland and Lesotho by as much as 18 percent more than if current policies continue. Raising employment ratios up to OECD levels could make South Africa's GDP per capita quadruple rather than triple in that time period. In Botswana, policies that stimulate higher productivity through better-quality education and technology could increase per capita income 14 percent more than in the business-as-usual scenario. Simulations also suggest that inclusive growth policies complement each other: simultaneous implementation could lead to greater impacts than the contribution of each policy alone. If all policies went into effect at once, South Africa's GDP per capita would almost quintuple rather than triple by 2050. It would more than triple in Botswana, Lesotho, and Swaziland, and almost triple in Namibia.

Yet countries must also recognize that social policies alone cannot bring on the demographic dividend. Their effects on it will be constrained if labor markets do not generate good jobs. Labor markets and job creation are affected by policies that go well beyond social policies. A sound macroeconomic environment, promotion of private-sector development, and the expansion of labor-intensive sectors are an essential part of the picture. So are labor market policies that strike a balance between the creation of jobs and the protection of incumbent workers. Although economic policy and labor regulation fall beyond the purpose of this report, they are fundamental elements to harness the demographic dividend.

## **Using an Opening of the Fiscal Space to Respond to Changing Social Needs**

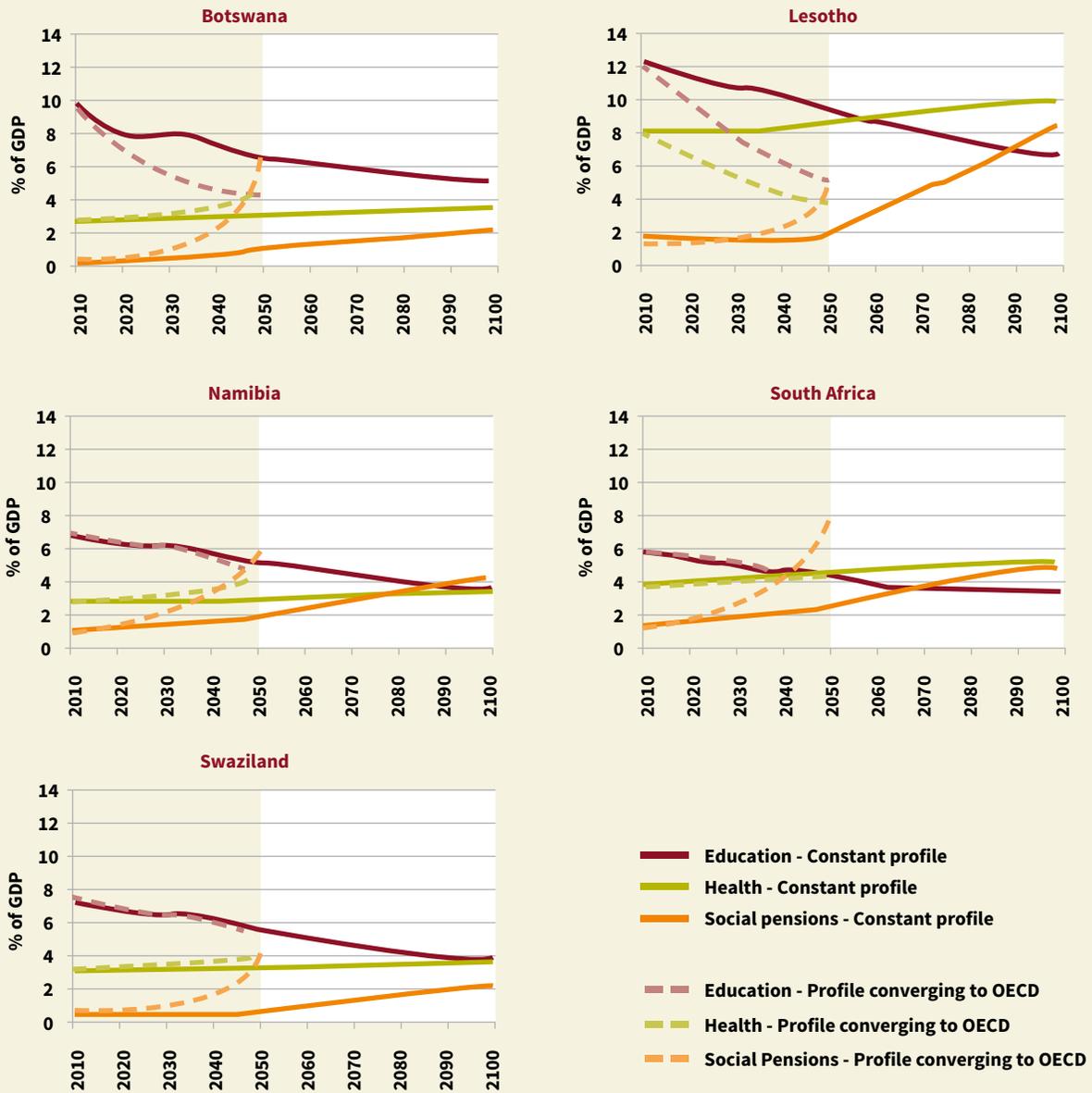
At a theoretical level, all societies can be divided into two groups: workers and dependents. Workers create wealth which supports themselves and dependents, whether they be children, old people, or working-age people who for whatever reason do not work. In societies that are younger or older than Southern Africa's, the large proportion of dependents requires large investments by the government, either to educate children or to meet the needs of old age. From a fiscal perspective, this limits a government's ability to invest in social services aimed at boosting the human capital of the population and promoting employment. But over the next decades, Southern Africa will get some important breathing room in this regard. More of its people will come to be of working age and will require neither full-time education nor elder care, which could free up fiscal resources for social policies aimed at making those workers and the future ones more productive. This is confirmed by social spending forecasts in Figure V.

Assuming a constant spending profile across age groups, aggregate spending for education is forecast to decrease between now and 2050 by two to three percentage points in all countries, thanks to the decrease in school-age population. Apart from in Botswana and Lesotho, which already spend more on education per pupil than the OECD average, outlays for education would decline even if the spending profiles across age groups rise toward OECD levels.

In health, a similar picture emerges. Because of the slow aging of the population, the increase in aggregate public health spending between now and 2050, growing from demographic changes alone, is forecast at just 1 percent—or even less. Moving to the OECD spending profile would lead to only slightly higher and still generally affordable spending levels. The exception is Lesotho, which already spends more on health per capita than the OECD countries. Convergence to OECD levels would actually drive its aggregate figure down.

The forecasts for social pensions—an important spending item in Southern Africa—present a slightly different picture. Because of the slow aging of the population, spending on pensions at current generosity levels is forecast to increase only slightly between now and 2050—by about 1 percent, or even less. If generosity increased toward OECD levels, however, aggregate spending would increase to as much as 6 percentage points of GDP, potentially crowding out increases in other social sectors.

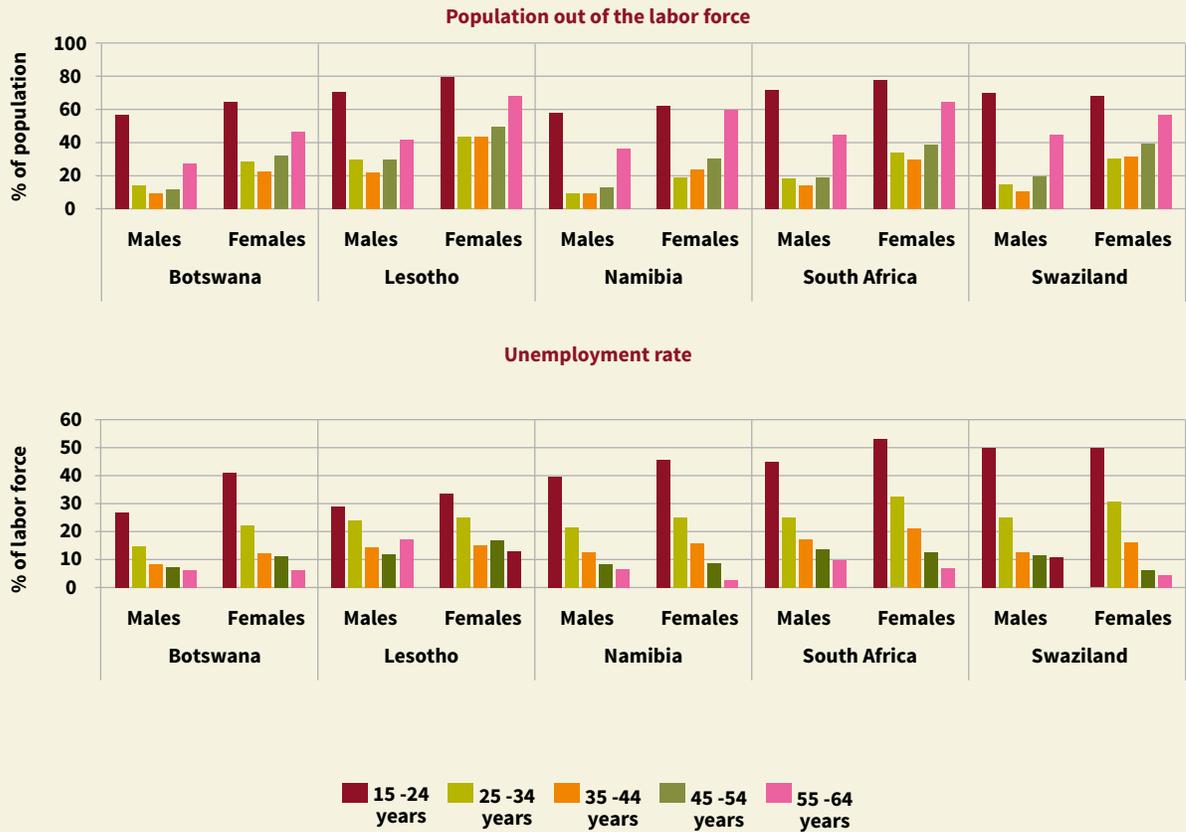
**FIGURE V: DEMOGRAPHY WILL NOT ADD TO THE FISCAL BURDEN IN SOCIAL SECTORS**



Note: the OECD profile represents median values of the profile of 14 OECD countries. All data are for public spending.

Source: Oosthuizen 2015.

**FIGURE VI: LACK OF EMPLOYMENT IS A CRITICAL ECONOMIC CHALLENGE**



Source: Authors' own elaboration based on Margolis and Yassine 2015.

In sum, then, demographics will only marginally raise fiscal pressure in the social sectors going forward—and in the case of education will even ease it. This report argues for redirecting any fiscal resources that are freed up towards social investments that will promote the productivity and employment prospects of the current and next generations of workers.

### Start by Helping Youth Get Good Jobs

Between now and 2050, the working-age population will increase by 29 percent in Botswana, 36 percent in Lesotho, 53 percent in Namibia, and 43 percent in Swaziland. In South Africa the percentage figure will be lower, 28 percent, yet representing an increase of almost 10 million people. But even now, before these increases occur, unemployment is endemic. Between a third and half of Southern Africa's young males

are looking for work but can't find it. Many more, although not studying, are simply idle and out of the labor force. Employment prospects for young females are even dimmer (Figure VI).

These unemployment and inactivity rates are high by international standards. In most low-income countries, unemployment is low—especially for males. In the OECD, only 20 percent of working-age males and 40 percent of females of that group are out of the labor force.

Having so much of Southern Africa's population (in some cases, the majority of the working-age group) out of the workforce hinders economic growth, equity, and poverty reduction. The economy is underutilizing a valuable resource—labor—while at the same time it needs to provide for a large number of dependents. And unemployment among youth means a double loss: the economy is forgoing not only the economic benefit of more workers, but the benefit of the very cohort that has achieved historically high levels of education.

If unaddressed, this employment will soon turn into a full-fledged jobs crisis with long-lasting consequences. If youth do not find stable and well-paid employment, they will not be able to provide for themselves and their families. They will be unable to save for old age. And they will likely pass their precarious conditions on to their children, generating a vicious intergenerational cycle of poverty and vulnerability. This means long-term ramifications, spanning from social (poverty and vulnerability), to economic (low-productivity workers and low savings rates) and fiscal challenges (lower tax revenues and added demands on social assistance).

For young people now completing their educations, active labor market policies (ALMP), such as job intermediation and retraining services, can facilitate school-to-work transitions and ensure a better match between what workers can offer and what employers are looking for. For youth with gaps in technical expertise and “soft skills” such as working within a group, dedicated training and job insertion programs can make a crucial difference.

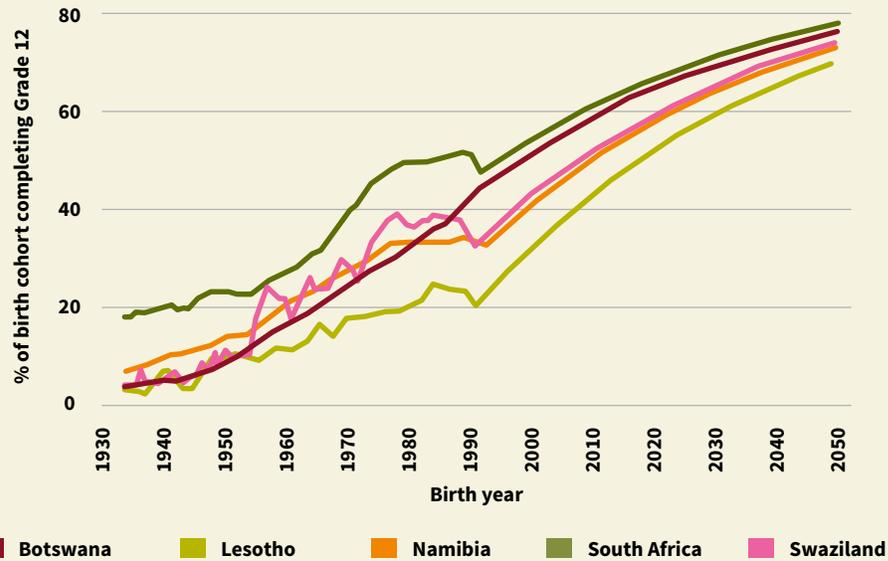
Southern Africa also needs action to improve the human capital of the many workers who have already left the education system. The countries now have 40 million people of working age and many of them lack the skills for a growingly sophisticated global economy. Bolstering the employability of these workers will be a long-term challenge, demanding continuous and remedial education, labor insertion programs, and social assistance.

## **Invest in Youth's Human Capital - Starting from the Early Ages**

Tackling high youth unemployment and low productivity will require serious improvements in the coverage and quality of education. Fortunately, the dramatic fall in fertility rates will open up the fiscal space to invest more in the human capital of the country's soon-to-be fewer children and its gradually shrinking youth cohort.

In recent years, all countries in Southern Africa have made great strides in improving coverage of basic schooling. Most have achieved close to universal primary completion rates, but there remain important

**FIGURE VII: ENROLLMENT RATES ARE STILL LOW AT THE SECONDARY LEVEL**



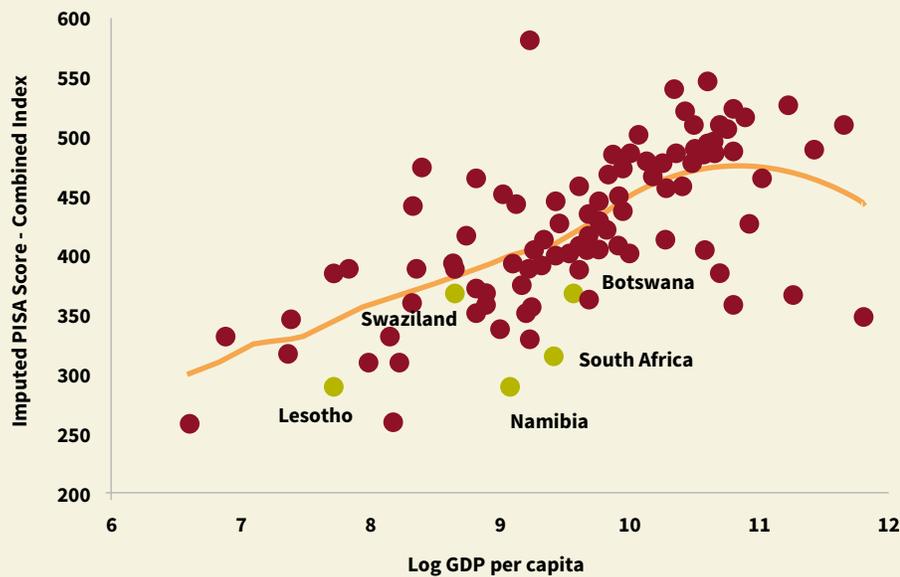
Source: van der Berg and Knoesen 2015.

gaps in coverage at the secondary level. Currently, only between 20 and 50 percent of people born in the late 1990s manage to complete Grade 12. In South Africa, only 60 percent of the group born in 2010 are expected to complete that grade—and Lesotho will need to wait until the 2030 cohort to achieve that level. Making secondary completion universal will require continued investments for decades to come (Figure VII).

Addressing coverage alone will not suffice, however: all Southern African countries also score below international averages in measures of educational quality (Figure VIII). Lesotho, Namibia, and South Africa have among the lowest educational quality scores as measured by the imputed PISA metrics.

Creating a solid human capital base requires years, if not decades of investment in education. It starts with building strong foundations for learning through early childhood development (ECD) services, which currently are offered in very few parts of Southern Africa. It continues with basic education that provides solid cognitive and socio-emotional skills. Later on, education curricula must provide the more specialized skills that the labor market will seek. While enrollment in the region's tertiary institutions—colleges and universities—is relatively low by international standards, it is steadily growing, and it is important to lay down ahead of time institutional bases that will bolster this sector and guarantee the

**FIGURE VIII: QUALITY OF EDUCATION IS POOR ACCORDING TO INTERNATIONAL STANDARDS**



Note: Estimates are for 2011. Source: van der Berg and Knoesen 2015, based on Gustafsson 2014.

quality of the education it offers. It will be much more difficult and costly to improve badly performing tertiary institutions, than to get them right from the beginning.

### **Address the Growing Complexity of Southern Africa's Epidemiological Profile**

In the next decades, the demographic transition in itself will not much affect Southern Africa's epidemiological profile, its unique mix and incidence of the various diseases and conditions that undermine public health. This is mostly because the aging of the population will proceed at a slow pace. As the simulations show, even if the spending profile across age groups were to rise to the levels of OECD countries, overall health care expenditures would increase only moderately.

This does not imply, however, that the health sector will face no challenges. Changing lifestyles are adding new diseases that the health sector will have to confront. It will also need to keep up with old ones, which are not likely to fade out soon.

Non-communicable diseases (NCDs) are becoming a growing cause of years of life lost in Southern Africa, while chronic malnutrition and communicable diseases (CDs) such as HIV/AIDS continue to afflict millions of people (Figure IX). Young people are disproportionately at risk. New HIV/AIDS cases, for instance, are concentrated among this group, in large part due to continuation of unsafe sex practices.

**FIGURE IX: NCDS ARE PROLIFERATING WHILE OLD DISEASES ARE STILL WIDESPREAD**

Leading causes of years of life lost	Developed countries	SSA	Botswana	Lesotho	Namibia	South Africa	Swaziland
1 <sup>st</sup> cause	Ischemic heart disease	HIV/AIDS	HIV/AIDS	HIV/AIDS	HIV/AIDS	HIV/AIDS	HIV/AIDS
2 <sup>nd</sup> cause	Stroke	Malaria	TB	TB	TB	LRIs	LRIs
3 <sup>rd</sup> cause	Lung, tracheal, and bronchus cancers	LRI	LRIs	Diarrheal diseases	LRIs	TB	Diarrheal diseases
4 <sup>th</sup> cause	Self-harm	Diarrheal diseases	Diarrheal diseases	LRIs	Diarrheal diseases	Diarrheal diseases	TB
5 <sup>th</sup> cause	Alzheimer's	Pre-term birth	Road injuries	Pre-term birth	Stroke	Violence	Road injuries
6 <sup>th</sup> cause	Cirrhosis	Neonatal Enceph.	Self harm	Violence	Self-harm	Stroke	Pre-term birth
7 <sup>th</sup> cause	COPD	Protein energy malnutrition	Pre-term birth	Neonatal enceph.	Road injuries	Road injuries	Self-harm
8 <sup>th</sup> cause	Colorectal cancers	Congenital defects	Neonatal enceph.	Self-harm	Pre-term birth	Ischemic heart disease	Violence
9 <sup>th</sup> cause	LRIs	Neonatal sepsis	Maternal death	Stroke	Ischemic heart disease	Diabetes	Stroke
10 <sup>th</sup> cause	Road injuries	TB	Violence	Road injuries	Violence	Pre-term birth	Neonatal enceph.

**Communicable Diseases**  
 **Non-communicable Diseases**

Note: COPD = chronic obstructive pulmonary disease; LRIs= lower respiratory infections; Neonatal enceph = Neonatal encephalitis (due to asphyxia and trauma); TB = tuberculosis.

Source: Global Burden of Disease, Institute for Health Metrics and Evaluation 2014.

Redirecting the public health system will be no easy task. The service delivery model to tackle NCDs is very different and more expensive than the one used against CDs. With CDs, care is episodic, does not require long follow up (with the exceptions of TB and HIV), and in most cases uses relatively affordable technology (mainly medicines). In contrast, NCDs require continuous “case management,” close coordination between different levels of care, and, in cases where diseases are not prevented or promptly treated, expensive technology. Southern African countries have no choice but to invest heavily in the treatment and especially prevention of NCDs, because they represent a ticking fiscal bomb that may eventually strain the resources of the entire health sector, as well as society at large.

## **Rebalance Social Assistance across the Life Cycle**

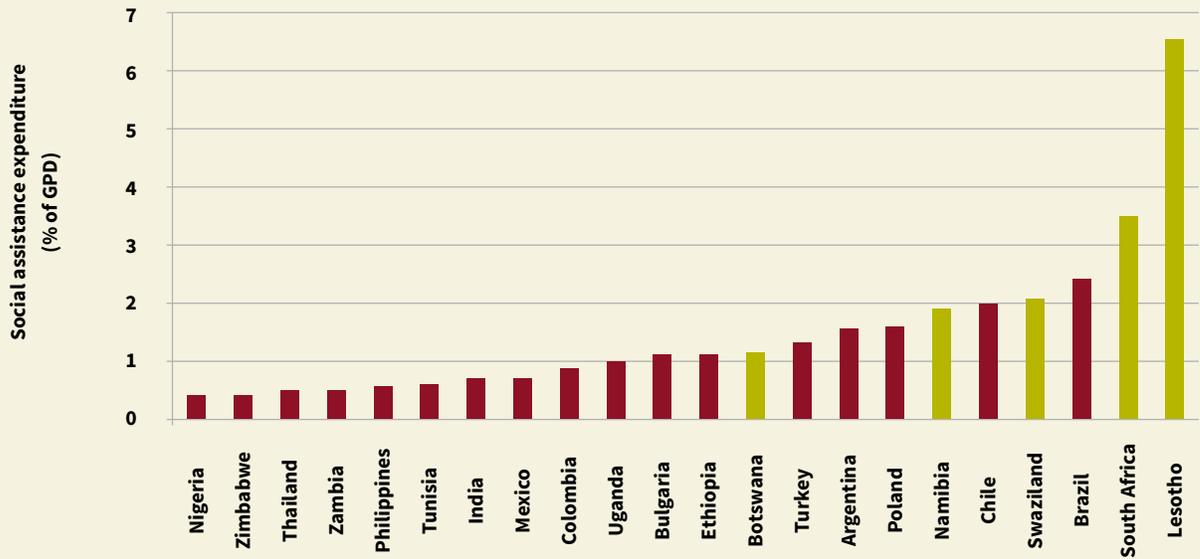
Countries in Southern Africa have generous and comprehensive social assistance systems. Fiscal resources allocated to these programs are high in comparison with most emerging economies (Figure X). This is consistent with explicit policy priorities of the sub-region’s governments to assist poor and vulnerable people to achieve more equitable societies.

Social assistance is heavily geared towards supporting the elderly: resources per individual in the 65-plus age group are four and a half times higher than those available to people aged 0-19 in Botswana and six times higher in South Africa. The ratio increases to 12 in Lesotho, 30 in Swaziland, and 38 in Namibia (Figure XI).

The lower resources allocated to children and youth help explain why cash transfers are too small to have much effect on poverty among the younger generations. Figure XII estimates poverty rates before and after considering all cash transfers to households. Apart from in South Africa, the impact on the non-elderly remains negligible. The “trickle down” effect of old-age pensions to younger household members is often called an important indirect benefit of pensions. But Figure XII suggests there is little such effect, possibly because many households have no elderly member and so cannot benefit from a pension.

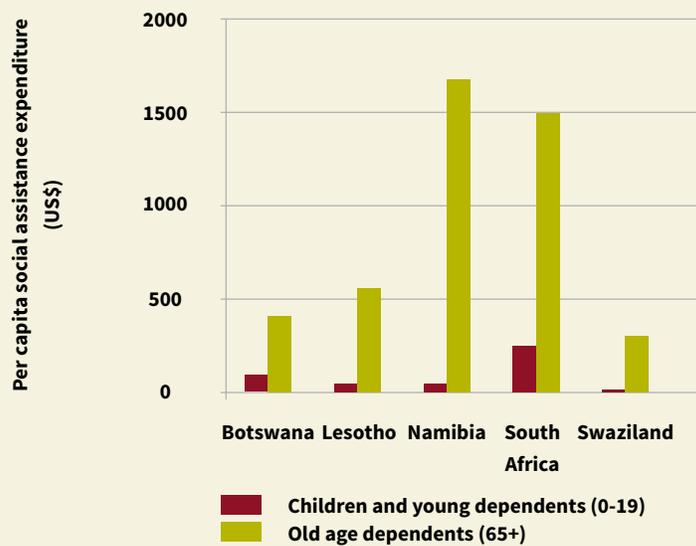
Overall, Southern Africa’s social assistance systems are geared towards a *protective* role and may miss an equally important role of *promoting* the human capital development of the younger generations. Well-designed cash transfers to children and youth can boost use of crucial health services such as growth-monitoring checkups for infants, assuring healthier childhoods, and at later ages can help reduce school drop-out rates, in particular among the poor and vulnerable. ALMPs and continuous education programs can help vulnerable youth find places in the job market. Yet in Southern Africa these programs are rare. What few the countries have are often implemented in isolation from one another, which prevents tailoring assistance to the specific needs and vulnerabilities of each individual and following that person across the life cycle. Integrating social assistance programs into a well-articulated national system could bring significant gains in reach and efficiency. For vulnerable youth, social policies should go beyond the labor market to address the main threats to their welfare. These include unwanted pregnancy, HIV/AIDS, and low-quality education.

**FIGURE X: SOCIAL ASSISTANCE EXPENDITURE IS GENEROUS BY INTERNATIONAL STANDARDS**



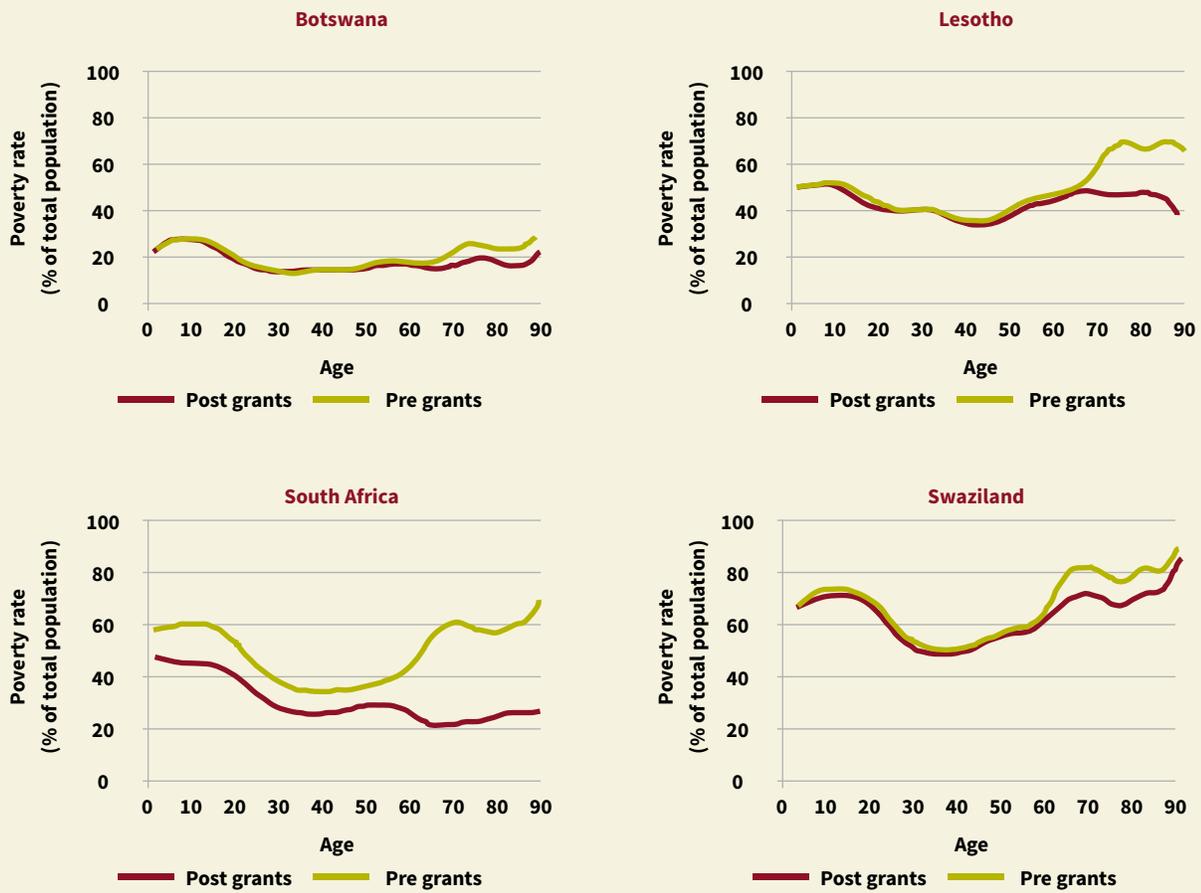
Source: World Bank. "The Atlas of Social Protection: Indicators of Resilience and Equity (ASPIRE)." ca. 2010.

**FIGURE XI: THE ELDERLY RECEIVE SIGNIFICANTLY MORE SOCIAL ASSISTANCE BENEFITS THAN CHILDREN**



Note: Per capita social assistance expenditure is calculated as the ratio of total expenditure per age group to the number of people in that age group.

**FIGURE XII: THE POVERTY IMPACT OF CASH TRANSFERS ON CHILDREN AND YOUTH REMAINS MODERATE**



Note: The estimates are based on national poverty lines. Data for Namibia is not available. Source: Oosthuizen 2015.

## Addressing Emerging Needs in a World of Trade-offs

This report provides important pointers for policy makers in the midst of complex demographic shifts and strategic considerations. In Southern Africa, the share of the elderly population will grow only moderately in coming decades, while the school-age population will shrink in relative terms. The working-age population will bulge. Fiscal resources that these changes will free up should go to improve support of the dependent populations but also to bolster the skills, health and general employability of those whose labor creates society's wealth. Integrating social assistance programs into a well-articulated system covering people all through the life cycle could lead to significant gains in efficiency and help put Southern Africa on the road to realizing the demographic dividend.

The need to adapt social policies to changing demographics will generate complex tradeoffs, none of which may deliver simple answers—and almost all of which will favor some population groups at the expense of others. The first group of tradeoffs is across social sectors. Addressing youth unemployment is a pressing priority. But where will resources come from to close coverage gaps and improve the quality of education? Ignoring the emergence of non-communicable diseases would lead to a major health crisis a few decades down the line. And without adequate social pensions, many vulnerable elderly people would fall into destitution. The second group of tradeoffs is across age groups. In education, how much should be invested in early childhood development versus improving the quality of the regular curriculum or expanding continuous education for those who have already left school? And how much fiscal space is there to rebalance social assistance toward promoting youth's human capital and employment?

In spite of these tradeoffs, inaction is the worst response. Without stronger investments in the new generations, the countries of Southern Africa are bound to remain in a vicious cycle of poverty and vulnerability.

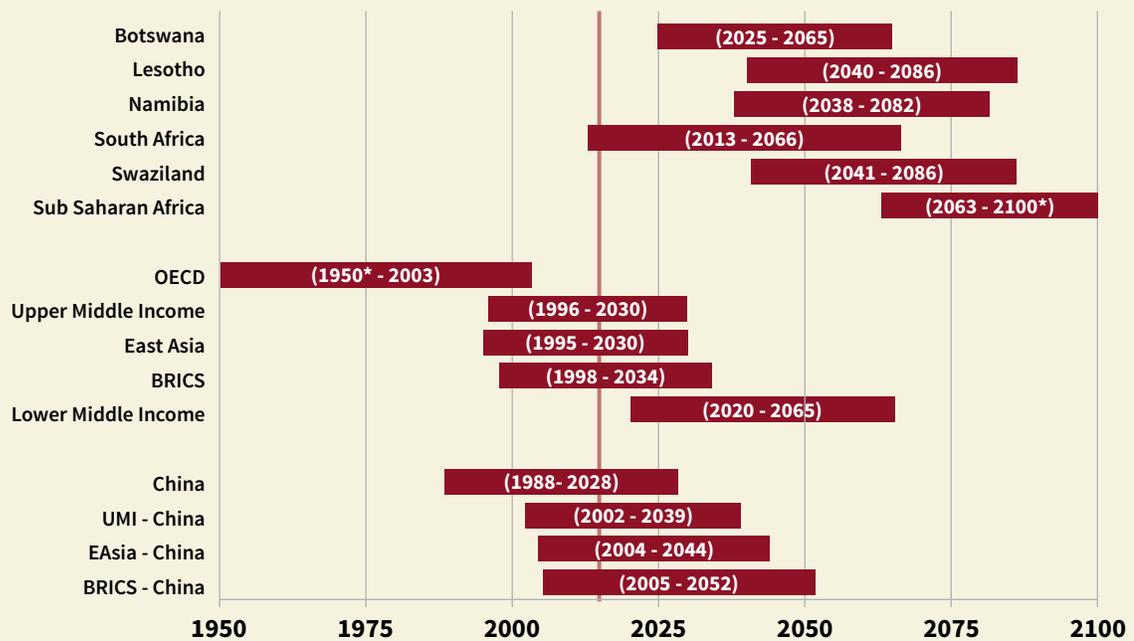
# 1. LIFE AT THE CROSSROADS: TAKING ADVANTAGE OF SOUTHERN AFRICA'S NASCENT DEMOGRAPHIC DIVIDEND

Demography affects our daily lives. Consciously or not, we take into account the demographic context when making choices on employment, savings, health, and education. Parents will have fewer children if they perceive a high chance that offspring will survive young age, for example. They will invest more in their children's education and health. People will save more if they expect to live until old age themselves. For reasons like these, policymakers should consider demography if they hope to craft effective and efficient policies that can respond to the changing needs of a population. Regrettably, demography often does not receive the importance it deserves in policy making, in part because it entails changes that may not become visible for decades. But if demographic trends go ignored, opportunities may be lost, or even worse, large costs to society may accumulate.

This report studies how demographic change is likely to affect demand for social services in Southern Africa and how today's policies can be shaped to reap potential benefits from demographic dynamics and address the population's evolving needs. We define the social sectors as education, health, and social assistance<sup>2</sup> and social policies as policies related to these three sectors. The study illustrates how social policies designed to fit with evolving demographic structures are likely to lead to wealthier and more productive future generations, fostering growth and equity. But the reverse also holds: ill-tailored social policies can hold back countries' development and heighten intergenerational tensions.

The study focuses on five countries in Southern Africa: Botswana, Lesotho, Namibia, South Africa, and Swaziland. The rationale for studying them in isolation is that, compared to the rest of Sub-Saharan Africa, their sub-region finds itself at a different demographic moment. Mortality and fertility started decreasing much earlier and faster. As a consequence, a "demographic window of opportunity" is opening sooner. This is the period of time in which the ratio of the working-age population to the dependent-aged increases rapidly and reaches its peak (see Figure 1 and Chapter 2). Between 2015 and 2050 the Southern African working-age population will double, with only modest increases in the dependent-age population. The

**FIGURE 1: A DEMOGRAPHIC WINDOW OF OPPORTUNITY IS OPENING IN SOUTHERN AFRICA**



*Note: An asterisk next to a date indicates the window is open before or after the period covered by the 2015 World Population Prospects dataset. As defined by United Nations, the window of demographic opportunity opens when the proportion of the population under the age of 15 is less than 30 percent, and the proportion aged 65 and over is less than 15 percent. Source: Moultrie 2015.*

window is opening in these five countries as it is closing in many middle-income countries (especially in East Asia) and is projected to remain open for longer than in most countries, from 43 years in Swaziland to 53 years in South Africa.

A prolonged period with a high proportion of active-age people represents both an opportunity and a challenge. It is an opportunity because fewer dependents per worker means lower fiscal pressure over the next decades to provide social services to the population, such as education for the young, employment and active labor market programs for youth and adults, pensions for the elderly, and health care throughout the lifecycle. Holding other factors constant, the five countries will therefore face the opportunity to rebalance social policies towards greater quality and the emerging needs of a changing population.

The challenge is that the growing working-age population will need to find jobs in order to create this prosperity. Yet Southern African labor markets are frail. Employment will therefore be at the forefront of the political agenda for the decades to come. The ability of governments to foster job growth in the private sector will be key to the five countries' short- and long-term growth and equity.

The countries must also create social policies that can drive this prosperity. Policies will increasingly need to shift to serve a dual objective: protecting the poor and vulnerable from shocks; and promoting the human development of the population. A growing, well-educated labor force that is supported by efficient services during all stages in life can set countries on an inclusive and sustained growth path. But if policies fail to change, a poorly skilled and unemployed workforce will likely be left to perpetuate the vicious cycle of poverty and inequality.

The rest of this report is structured as follows. Chapter 2 presents evidence on demographic trends in Southern Africa. Chapter 3 explains the report's conceptual framework and how demography can be an opportunity or a curse, depending on the policy environment. Chapter 4 studies the five countries' labor markets and documents challenges that a growing active labor force is likely to generate. Chapter 5 looks at the likely impacts of changing demographics on social sectors. It shows how a dependency ratio that will remain relatively low for decades to come will provide the opportunity to redirect social spending towards emerging priorities, and identifies which of these priorities will be in education, health, and social assistance. Chapter 6 concludes the study by discussing immediate policy implications.

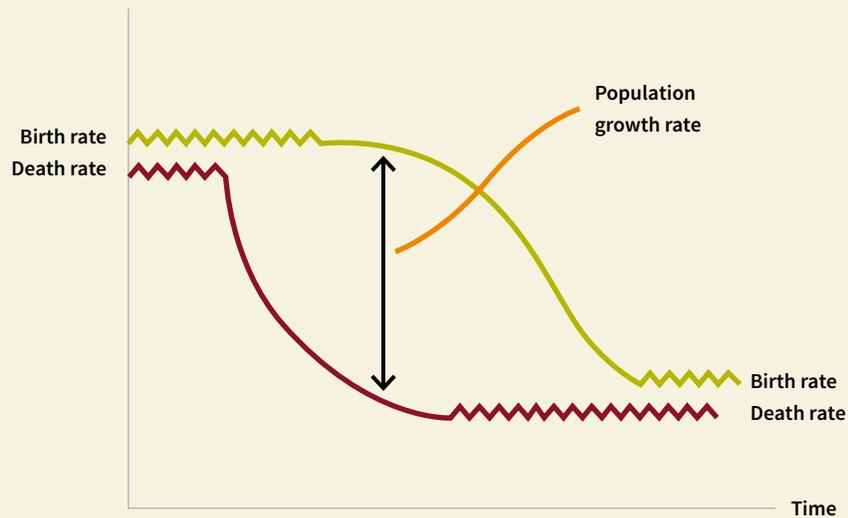
## 2. A DEMOGRAPHIC OPPORTUNITY FOR SOUTHERN AFRICA

The demographic transition is defined in the literature as a process that starts with declines in mortality, followed, after some time, by decreases in fertility.<sup>3</sup> A series of factors such as infectious disease reduction, better nutrition, and improvements in public health lead first to a fall in infant and child mortality rates and subsequently to an increase in life expectancy for the population as a whole. Fertility takes some time to respond, but eventually adjusts to reduced mortality, as parents' expectations of their children's survival improve. Figure 2 stylizes the demographic transition, which can be thought of as four stages characterized by (1) high mortality and high fertility, (2) decreasing mortality and high fertility, (3) low mortality and decreasing fertility, and (4) low mortality and low fertility.

Changes in mortality and fertility rates affect not only population growth, but also the population age structure. At the beginning of the demographic transition, when mortality decreases but fertility is still high, there is a rise in the proportion of youth dependents, hence an increase in the dependency ratio. However, as this cohort reaches working age, countries experience a favorable situation in which the proportion of the working-age population increases.<sup>4</sup> At the same time, as fertility starts to decrease, the surge in the working-age population is accompanied by a fall in the relative number of young dependents. As a consequence of this transition, each country enjoys a window of demographic opportunity in which the dependency ratio is historically low and the proportion of the working-age population is historically high.<sup>5</sup>

Having a greater portion of the population at work can potentially lead to an increase in output per capita, a phenomenon that the literature calls the *first demographic dividend*. A few studies have tried to quantify the contribution of this first dividend. Using different estimation methods, three separate studies<sup>6</sup> all estimate a positive impact on per capita GDP growth in South and East Asia. For the period 1960-1990, the impact amounts to up to one third of total growth. For the period 1970-2000, another

**FIGURE 2: CONCEPTUAL FRAMEWORK: THE DEMOGRAPHIC TRANSITION**



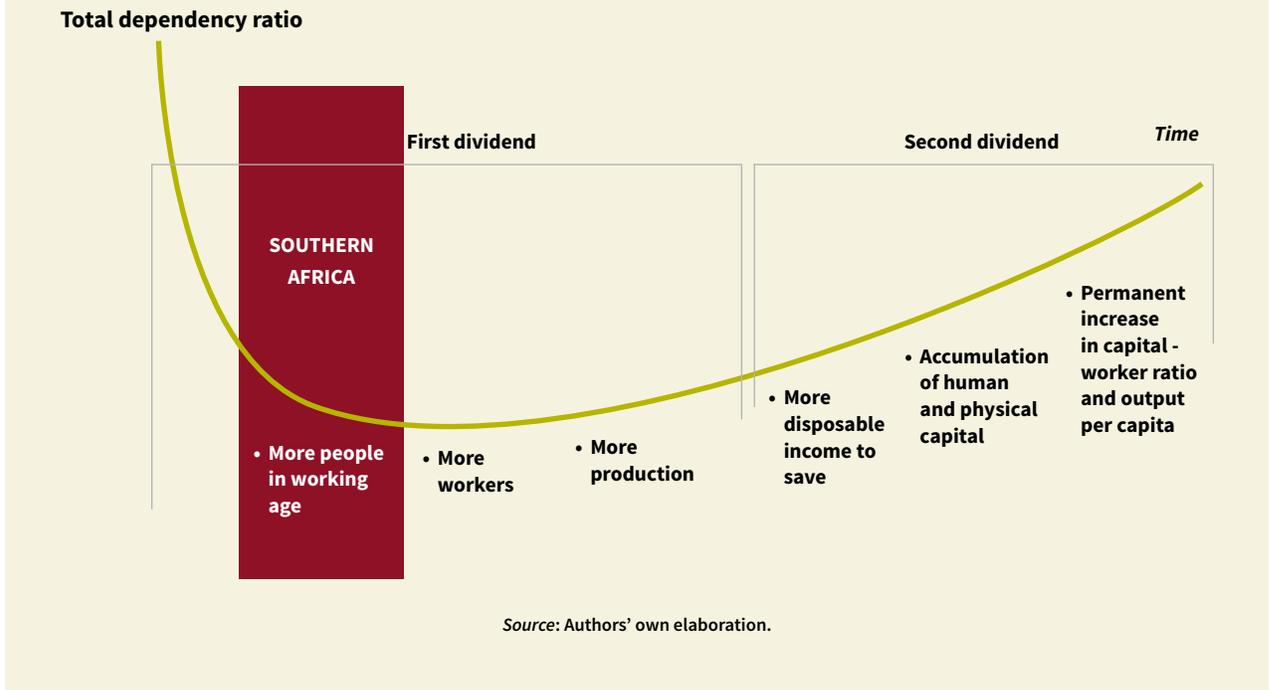
Source: Bloom and Williamson 1998.

study found that the contribution of the first dividend is more modest but positive for almost all regions of the world, with the exception of Sub-Saharan Africa.<sup>7</sup>

While the first dividend arises mainly because of increased labor supply, societies may enjoy a *second demographic dividend* through potentially higher savings (for instance, because more people save for their retirement) and higher investments in both human and physical capital.<sup>8</sup> The contribution of the second dividend to growth appears to be even higher than the first's. Nevertheless, achieving the first dividend and the consequent increase in income is an essential condition of generating the added savings that drive the second dividend.

Figure 3 illustrates the steps leading from demographic change to potential economic and social gains. As the figure shows, these gains do not arise automatically, but depend on a country's ability to set appropriate social and economic policies. The policy readiness of the five countries of Southern Africa vis-à-vis its pending demographic changes is the focus of this report.

**FIGURE 3: CONCEPTUAL FRAMEWORK: THE DEMOGRAPHIC DIVIDENDS**



**BOX 1: BUILDING ON OTHER WORLD BANK ANALYTICAL WORK ON DEMOGRAPHICS**

The work presented in this report benefits directly from methodologies and evidence presented in two analytical studies that the World Bank recently conducted into the implications of demographic change from a global and regional perspective.

The first study—“The Demographic Transition in Africa: Dividend or Disaster?”—presents a positive agenda by which Sub-Saharan Africa as a whole might accelerate the transition and then capture the potential social and economic benefits of a demographic dividend. It recognizes that Southern Africa is a demographic exception in the Sub-Saharan region, especially in terms of lower fertility and child dependency rates. The report stresses how the relationship between the fertility transition and human development works in both directions, creating a virtuous cycle that can speed fertility decline, social development, and eventually economic growth. The report focuses on health, education, and women’s empowerment as three highly interactive accelerators to trigger and harness the dividend.

The second study—“Global Monitoring Report 2015/2016: Development Goals in an Era of Demographic Change”—analyzes how profound changes in global demography can alter the trajectory of global development. To frame the impact across countries, the report lays out a new typology of demographic change. The “early dividend” countries of Southern Africa are distinguished from the rest of the Sub-

Saharan region, which is still in a “pre-dividend” phase. The report stresses the need to implement sound policies informed by a long-run perspective and tailored to a nation’s demographic context. In the case of early-dividend countries, the report proposes focusing on interventions that help absorb new workers into productive jobs. The effects of key policy reforms in a context of demographic change are simulated with the LINKAGE-GIDD framework applied in the current study and described in Box 3.

### **Southern Africa: An Unusual Demographic Pattern for Sub-Saharan Africa**

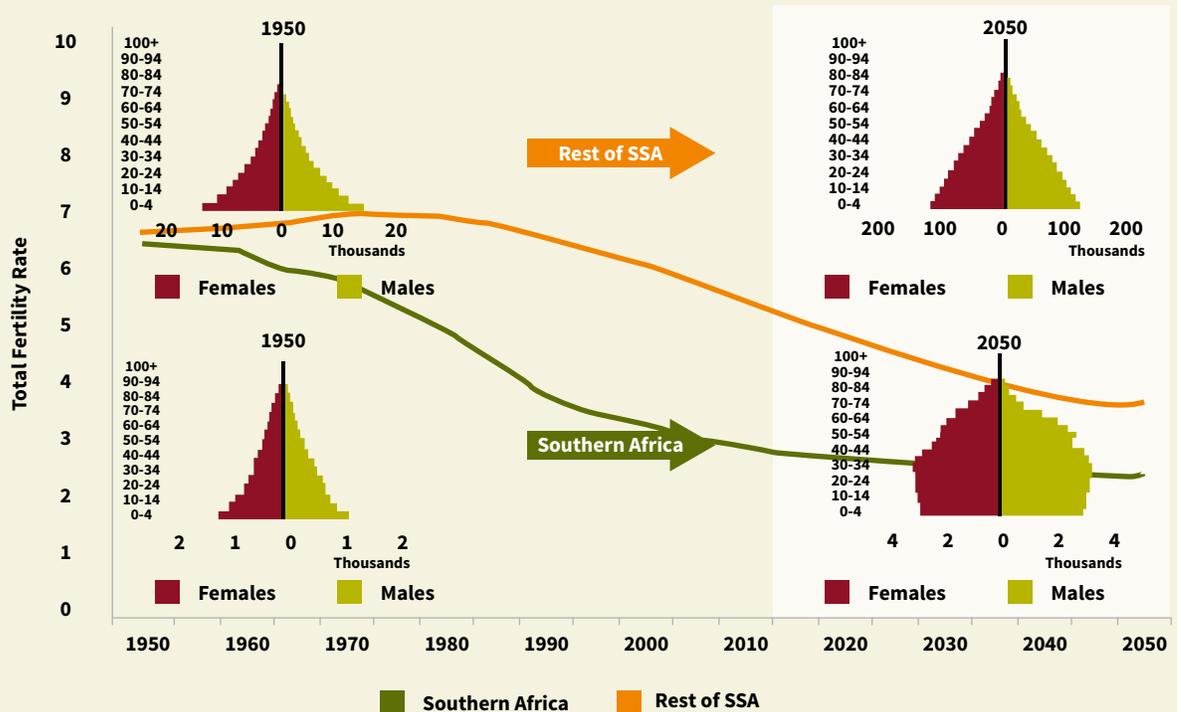
Southern Africa is entering its demographic transition earlier than the rest of Sub-Saharan Africa (Figure 4). Life expectancy in Southern Africa was pretty similar to the rest of the region’s until the 1940s, and in 1950 population age structures in the two areas were almost identical. However, in the mid-1950s life expectancy started increasing much more rapidly in Southern Africa. As a response, South Africa’s total fertility rate (TFR) began declining, from 6.4 children per woman in 1950 to 2.3 in 2015. Botswana, Lesotho, Namibia, and Swaziland began to register declining fertility in the late 1970s. The number of children per woman in these countries currently ranges from 3 in Botswana to 3.5 in Namibia.

The fall in fertility has not stopped in response to the temporary surge in HIV/AIDS-related deaths (see Box 2). Based on current fertility levels and trends, Swaziland, Lesotho, and Namibia are likely to approximate the so-called replacement level<sup>9</sup> of 2.1 children per woman by 2050, while fertility in Botswana and South Africa will be well below replacement level by that year.

Figure 4 illustrates how different trends in fertility lead to different age structures in the population. The population pyramids on the right side of Figure 4 show that in 2050 the working-age cohort in Southern Africa will be larger than the number of young dependents, while the age structure in the rest of Sub-Saharan Africa will more closely resemble the 1950 pyramids.

The scarcity of reliable demographic data up to the 1990s makes it difficult to settle on an explanation for the demographic differences between Southern Africa and the rest of the region. The contrasting trends in life expectancy and fertility are generally attributed to a mix of factors in the economic environment, as well as population policies. In the beginning of the Twentieth Century, Southern Africa (and particularly South Africa) attained higher levels of GDP per capita and literacy rates compared to the region as a whole,<sup>10</sup> which probably contributed to its early fall in child and adult mortality and fertility. The migration of large numbers of workers from villages to cities likely also contributed to the shifting of preferences towards smaller families.<sup>11</sup> Fertility decline in South Africa, especially among the black population, also got a considerable push from the early adoption of a national population policy, accompanied by a significant increase in the supply of reproductive, maternal, and child health services,

**FIGURE 4: BY 2050, THE AGE STRUCTURE IN SOUTHERN AFRICA WILL DIFFER SUBSTANTIALLY FROM THE REST OF SUB-SAHARAN AFRICA**

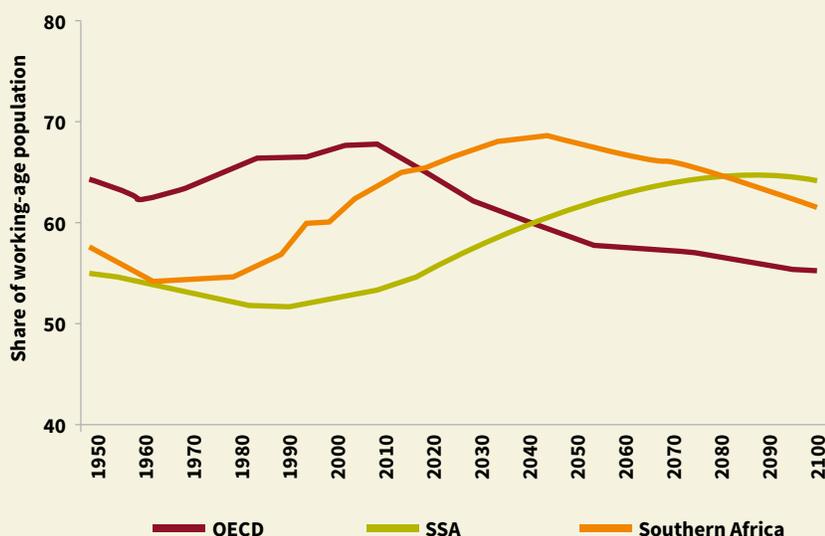


Note: “Rest of SSA” refers to the Sub-Saharan region (UN definition) minus Southern Africa. Population pyramids are computed based on the total population by sex and age in these two sub-regions. Sub-regional total fertility rates are population-weighted averages of the single countries. Source: Authors’ own elaboration based on UN World Population Prospects 2015.

starting in the 1960s and accelerating notably in the 1970s.<sup>12</sup> A similar shift occurred in Botswana, which adopted a comprehensive population policy and extended family planning services in the 1980s.<sup>13</sup> The commercial and political links between countries in Southern Africa (high labor migration between countries and to South Africa in particular, and South Africa’s colonization of Namibia) have likely helped spread ideas, preferences and services - leading to a steady fertility reduction.

As of today, countries in Southern Africa are already seeing fast growth in their working-age population. This group’s share in the total population will peak between 2040 and 2050. That is three decades after the OECD average of around 2010, and four decades before the average projected for the rest of Sub-Saharan Africa, around 2080-2090 (Figure 5). Southern Africa therefore currently finds itself in a “sweet spot,” in which it will enjoy a higher share of working-age population over the next six decades compared to the OECD and the rest of Sub-Saharan Africa.

**FIGURE 5: THE SHARE OF WORKING-AGE POPULATION IN SOUTHERN AFRICA WILL PEAK BETWEEN 2040 AND 2050**



Note: Trends represent population-weighted averages. Source: Authors' own elaboration based on UN World Population Prospects 2015.

## BOX 2: THE DEMOGRAPHIC TRANSITION AND THE HIV/AIDS EPIDEMIC

The HIV/AIDS epidemic has had devastating impact on societies and economies all over Southern Africa. Entire families and villages were decimated, leaving children and aged dependents on their own. The economy suffered severe damage at all levels, from reduced savings and income-earning abilities at the household level, to productivity drops, high turnover, and skills shortages at the firm level, to a shrinking of the labor force, higher health care spending, and reduced savings and investments at the country level.

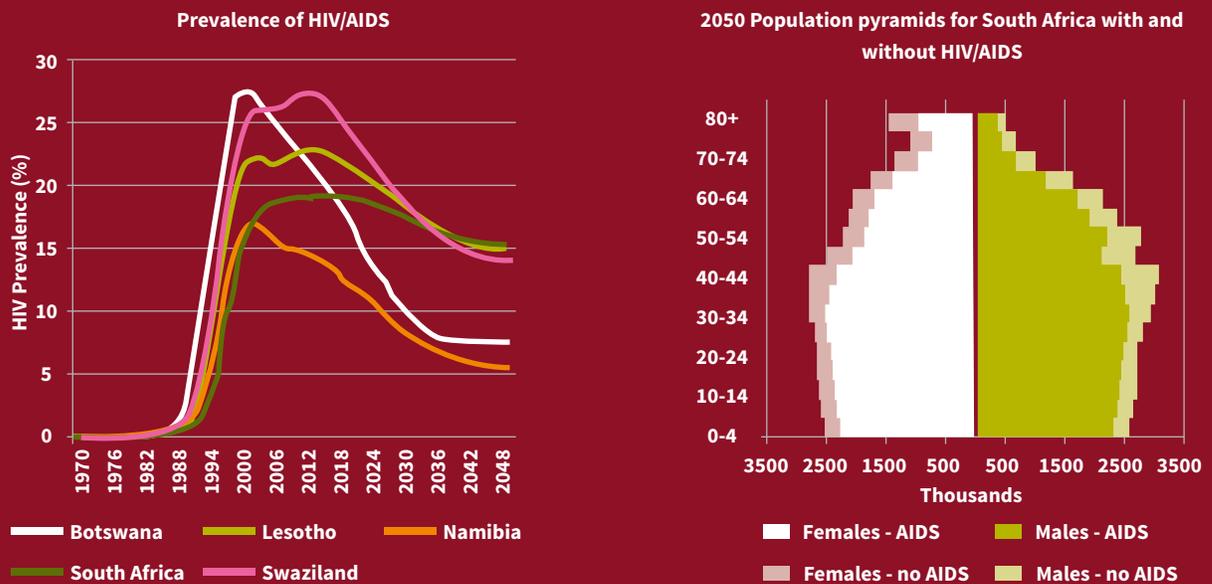
Twenty years later, AIDS' prevalence is slowly declining, but depending on the country, between 16 and 27 percent of adults aged 15-49 still live with the virus. However, thanks to impressive and sustained government efforts in both the public health and social services arena (with particular emphasis on provision of free Antiretroviral Therapy, or ART), some of the epidemic's worst impact is past. But going forward, what can be expected?

Modeling the future demographic and epidemiological dynamics of HIV is extremely complex. If a cure, vaccine, or new treatment is developed, there will be fundamental changes in the demographic assumptions concerning the virus. Similarly, assumptions about the effectiveness of other interventions (e.g. promotion of condom use, male circumcision, and information and education campaigns) also

shape the modeled effects of the epidemic. In addition, roll-out of treatment and the resulting survival post-infection by age, cohort, period, and duration of infection must all be factored in.

So far, encouraging messages emerge from simulations. In all countries, prevalence of HIV infection is projected to decline to between 6 and 15 percent of the population by 2050 (Figure 6, left panel). And slowly but steadily, economic and social structures are recovering. Long-term simulations of population pyramids with and without the HIV/AIDS impacts suggest that, by 2050, the population of working-age adults would have been markedly larger had the epidemic not occurred (Figure 6, right panel). That finding is perhaps not surprising, but apart from the scale effect, the two population pyramids look similar in shape, which suggests that the epidemic may have slowed, but definitely not stopped, the demographic transition.

**FIGURE 6: THE HIV/AIDS EPIDEMIC DID NOT STOP THE DEMOGRAPHIC TRANSITION**



Source: Moultrie 2015.

# 3. THE DEMOGRAPHIC DIVIDEND IS NOT A GIVEN

The demographic transition is inevitable: it is driven by changes in fertility and mortality that occurred decades ago. But the demographic *dividend* is by no means guaranteed. The quality of today's economic and social policies will determine if the transition brings social and economic benefits, or is a drag on both growth and equity.

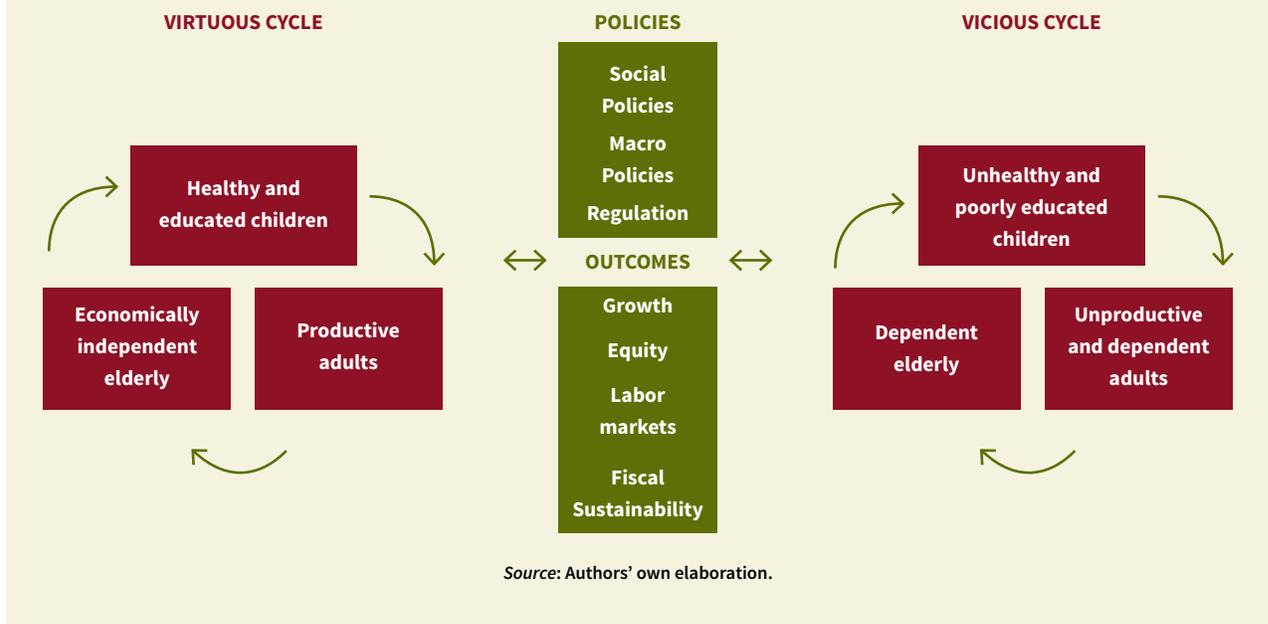
The demographic transition will amplify the effects of policies - whether they are good or bad. Figure 7 summarizes the conceptual framework upon which this study is built. In the virtuous cycle, well designed social policies help children grow up healthy and well educated. With access to good jobs created through good economic policies, these adults fulfill their earning potential, and, aided by adequate pension policies, they save enough to maintain their welfare in old age. As productive and educated adults they are more likely to raise healthy and educated children. A virtuous cycle of social welfare begins, spanning the generations.

In the vicious cycle, poorly thought-out social policies contribute to children growing up unhealthy and poorly educated. As adults, they have little hope of finding stable and well-paid jobs, especially in the absence of effective economic policies. As such they will be less likely to raise healthy and educated children, leading to a continuation of the cycle of poverty. In old age, the parents will have few savings and become dependent on government assistance and on children who may have difficulty providing care.

Virtuous or vicious life cycles will thus have implications in terms of aggregate growth, equity, the functioning of labor markets and fiscal sustainability, among other key long-term factors in an economy. Social programs also have deep implications for life cycles. Effective and appropriate policies are needed at every stage of life to help countries hop onto the virtuous cycle.

The contrasting experience of Western Europe, the United States, and later East Asia on one hand, and Eastern Europe on the other is evidence that policies matter in reaping the demographic dividend. The former countries took full advantage of the transition by investing in education and pursuing economic

**FIGURE 7: THE DEMOGRAPHIC TRANSITION AMPLIFIES THE EFFECTS OF GOOD BUT ALSO BAD POLICIES**



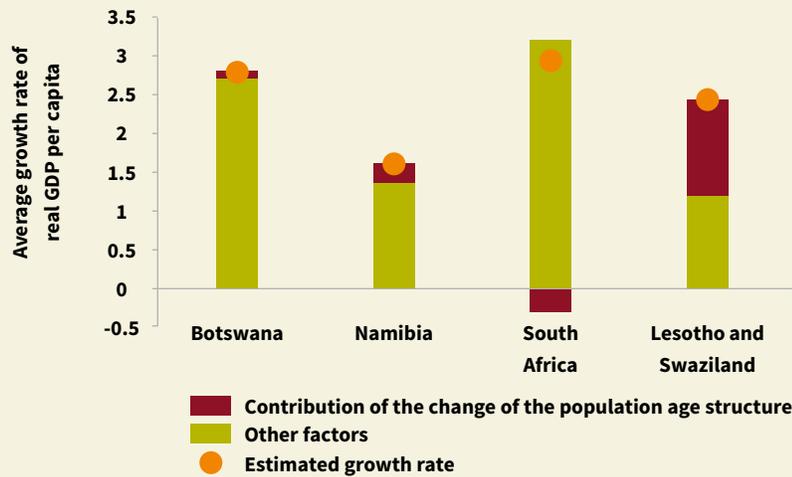
policies that focused on manufacturing and trade. The latter, in contrast, failed to put the right policies in place at the onset and as the demographic transition progressed. As a result, the largest population cohorts that Eastern European countries will ever experience are currently close to retirement age without having enjoyed high income growth nor accumulated significant levels of wealth.<sup>14</sup>

To be sure, these virtuous and vicious cycles exist independently of where countries find themselves in the demographic transition. However, the particular stage at which Southern Africa has arrived, with large cohorts of children and youth soon to reach working age, are sure to amplify the effects of social policies. Millions of workers will join the labor force. If they do not find stable and well paid employment they will not be able to exit poverty, and will struggle to raise healthy and educated children even though, as fertility declines, children will be fewer in number.

### **Inclusive Growth Policies Are Needed to Boost Growth and Reduce Poverty**

In order to illustrate the relationship between demographics, policies, and economic outcomes in Southern Africa, Ahmed and Cruz employ in their 2015 study a global dynamic computable general equilibrium (CGE) model (see Box 3).

**FIGURE 8: GIVEN THE CURRENT POLICY ENVIRONMENT, DEMOGRAPHY WILL ADD LITTLE TO GROWTH BY 2050**



Note: Estimates cover the period 2014-2050. Source: Ahmed and Cruz 2015

The result is striking: if the current social and economic environment remains in place, the future change in the population age structure will not necessarily imply a “demographic bonus” for all Southern Africa. The simulated effects differ among the five countries (Figure 8). Demographic change will generate half the average growth rate of GDP per capita in Lesotho and Swaziland,<sup>15</sup> between one fifth and one sixth in Botswana and Namibia, and, strikingly, will be a negative force (i.e. slowing growth) in what is by far the region’s largest economy, South Africa. Most of the sub-region’s growth in GDP per capita between 2015 and 2050 will be due to factors other than demography.

These results are surprising given the favorable demographic moment these countries are facing over the next decades, and the economic booms that occurred in similar periods in other countries. But the analysis deconstructs why a demographic bonus is not guaranteed. Consider South Africa, where demographic change could exert a drag on the economy. There, the share of the working-age population is already relatively high, and its growth is slowing due to ageing. But the potential benefits of having a larger proportion of workers is constrained by high inactivity and unemployment (see Section 4). Extra working-age people does not equal more output if the extra people are not working. And because South Africa is ahead in its demographic transition compared to the other four countries, its results are starker. Indeed, its experience could hold lessons for what might happen to the other countries as they progress further in their own demographic transitions.

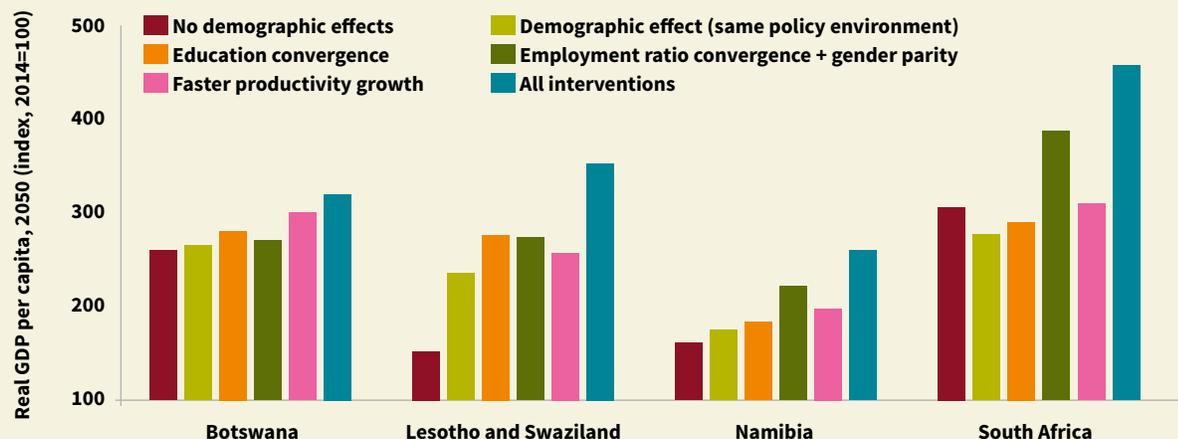
### BOX 3: THE LINKAGE-GIDD MICRO-MACRO MODELING FRAMEWORK

The forecasts presented here are based on two tools developed in the Development Economic Prospects Group of the World Bank. The first is the LINKAGE global Computable General Equilibrium (CGE) model that feeds into a Global Income Distribution Dynamics (GIDD) simulation. At its core, the LINKAGE CGE model is a neo-classical growth model, with aggregate growth predicated on assumptions regarding the growth of the labor force, savings/investment decisions (and therefore capital accumulation), and productivity. Unlike more simple growth models, LINKAGE is multi-sectoral, which allows the differentiating of productivity growth between agriculture, manufacturing, and services. It is linked across regions, taking into account the influence of openness (via trade and finance) on domestic variables such as output and wages. And it has a more diverse set of productive factors, including land, natural resources, and skilled and unskilled labor.

The second tool, the GIDD simulation, is based on micro-simulation methodologies developed in recent literature. The authors combine a set of price and volume changes from the LINKAGE model with expected changes in demographic structure to create a simulated distribution of income in 2050. Specifically, they apply three main changes to the initial distribution: demographic changes, including aging and shifts in the skill composition of the population; alterations in the sectoral composition of employment; and economic growth, including changes in relative wages across skills and sectors. Further methodological references can be found in Ahmed and Cruz (2016).

To explore these results further, Figure 9 shows simulations of GDP in 2050 under six different scenarios: (1) maintaining the current demographic structure in the future (labeled “No demographic effect”); (2) incorporating the forecast demographic change (“Demographic effect, same policy environment”); (3) implementing education policies that cause convergence with OECD educational attainment levels in Botswana, Namibia, and South Africa, and convergence to upper-middle-income educational levels in Lesotho and Swaziland (“Educational convergence”); (4) implementing labor market policies that lead employment ratios of males and females to rise to the current OECD male median employment ratio (“Employment ratio convergence and gender parity”); (5) implementing policies that lead to increased productivity in the labor force, such as better-quality education or technology investment (“Faster productivity growth”); and (6) implementing all the above policies at once (“All interventions”). Given the current stage of the demographic transition in Southern Africa, the choice of the scenarios focuses on policies that could directly interact with labor markets to increase the education, productivity, and employability of youth and the large cohorts of working-age population. We collectively label these policy scenarios as “inclusive growth policies.”

**FIGURE 9: INCLUSIVE GROWTH POLICIES WOULD BOOST GAINS FROM THE DEMOGRAPHIC TRANSITION**



Source: Authors' own elaboration based on Ahmed and Cruz 2015.

As mentioned before, demographics alone would yield major gains in real GDP per capita in 2050 only in Lesotho and Swaziland (the difference between the first and second bars in Figure 9). In Botswana and Namibia, gains would be negligible and in South Africa demographics would be a drag on GDP per capita. Under these projections, GDP per capita in 2050 would be roughly between one and a half times (Namibia) and three (South Africa) times higher than current levels. While these may seem to be good results, they translate into relatively modest growth rates, ranging between one and a half and three percent annually.

Figure 9 suggests that strategic policy reforms to promote inclusion—if implemented today—could substantially improve the growth rates. Under the educational convergence scenario, the 2050 GDP per capita in Lesotho and Swaziland would be as much as 18 percent higher than under the current demographic and economic trends. That is because improving educational attainment could lead to a more skilled workforce that could enter the skilled and capital-intensive higher-value sectors. Note that in these countries the share of the working-age population is yet to reach its peak: hence the accumulation of human capital in the decades to come will have the highest impact, as it will accrue to larger cohorts of working-age people.

Improvements in labor markets would also amplify the positive effects of future demographics. If employment ratios of males and females were to converge to the current OECD male median ratio of 62.7 percent by 2050, GDP per capita would quadruple over today's levels, as opposed to triple, in South Africa. Similarly, it would more than double in Namibia, and almost triple in Lesotho and Swaziland. In

the latter three countries, GDP per capita in 2050 would be from 18 to 25 percent higher than in the pure demographic effect scenario. Labor markets are therefore critical for the first demographic dividend to materialize. Note that the simulations assume gender parity: a mix of increased female participation in the labor market and improved female employment rates allows for taking full advantage of the “gender dividend.”<sup>16</sup>

In countries as Botswana, where labor plays a smaller role in the economy (see Box 4), a “faster productivity growth” scenario delivers even higher GDP gains than the educational attainment and employment ones, hinting that improvements in the quality of education and progress in technology are an important determinant of growth. Botswana has made tremendous progress in school enrollment but still faces serious deficiencies in terms of quality and relevance of education and skills. By investing in the productivity of the workforce, it could achieve by 2050 a 14 percent higher income per capita than with the business-as-usual scenario.

The analysis suggests that inclusive growth policies complement each other: concerted implementation leads to greater impacts on growth than the contribution of each single policy. If all policies would be implemented at once, South Africa’s GDP per capita would almost quintuple over current rates by 2050, more than triple in Botswana, Lesotho, and Swaziland, and almost triple in Namibia (Figure 9).

#### **BOX 4: LABOR SUPPLY: HOW MUCH DOES IT MATTER FOR SOUTHERN AFRICA?**

One of the main potential boons that a country receives from the demographic transition is an increased supply of working-age people. If employed in productive jobs, this large workforce will allow the country to reap the benefits of the demographic dividend. But what if the country has an economic strategy that does not rely on labor as the main factor of production? In this type of model, the link between GDP growth and employment is weak. The country may undergo a period of high growth in its GDP numbers, but without improvements in employment.

Consider the case of Botswana. The country has experienced sustained growth—GDP per capita expanded at an annual average of 6.4 percent for close to 50 years, driven mainly by major revenue from diamond mining and the large public spending closely linked to it. However, the country has a weak record in creating jobs, especially in the private sector. Mining is a clear source of comparative advantage for Botswana and an important contributor of tax revenues, but it contributes little to jobs growth and, as a result, aggravates inequality.

A different situation, but with similar implications, is holding back Lesotho. In recent years, Lesotho has mainly relied on public sector expansion as its key source of growth. The government is already the formal economy’s largest employer. It is unlikely (and probably not desirable) that this sector will continue to expand enough to absorb the large future cohorts of working-age people, especially considering recent,

and expected drops in fiscal revenues. Mining is also one of the fastest-growing sectors of Lesotho's economy, but in Lesotho too it is capital-intensive, with little impact on employment.

When the window of demographic opportunity opens, relying on sectors that are not labor-intensive as main drivers of growth could mean foregoing the demographic dividend. Even worse, it could drive unemployment up as the number of people of working age grows and the labor supply remains roughly constant. For long-term equity and prosperity, countries ultimately need labor-intensive sectors that can absorb the growing workforce.

## **The Demographic Transition Can Help Break the Intergenerational Cycle of Poverty**

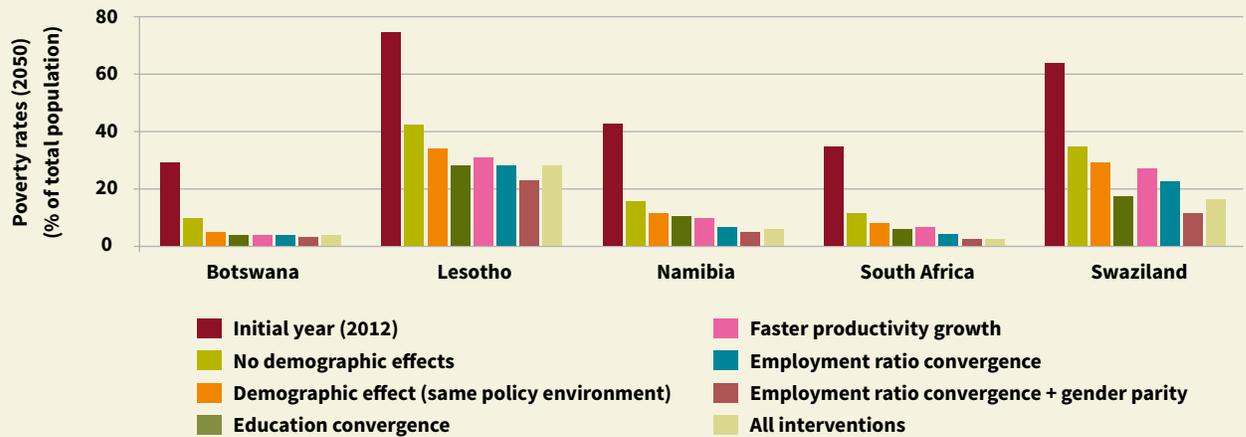
Demography is intrinsically related to poverty. At the household level, higher fertility means a larger share of young dependents to be supported. The higher this share, the more the household will experience financial stress and the risk of poverty, as a fixed supply of resources is divided among a growing number of household members.

Simulations confirm the intuition that effective anti-poverty strategies must factor in demography. As of 2050, demographic changes alone will cause moderate poverty (measured by the recently updated international reference of US\$3.10 a day at 2011 Purchasing Power Parity) to drop between an additional 4 percentage points in Namibia to 8 percentage points in Lesotho, compared to a scenario with no changes in household size and composition. Overall, demography alone will lift out of poverty more than 3.2 million people in Southern Africa, the simulations show.

Those are impressive numbers, but they can be greatly leveraged by adding inclusive growth policies to the mix. Helping parents achieve employment and additional income can lift whole households out of poverty, and strengthen their children's opportunities in life thanks to being members of wealthier and more resilient families. In Lesotho and Swaziland, for instance, concerted implementation of inclusive growth policies could reduce poverty in 2050 by an additional 12 and 17 percentage points, respectively, compared to the effect of demographics alone (Figure 10). In Namibia and South Africa the additional fall in poverty would be 8 and 7 percentage points, respectively. In absolute numbers, this would translate into 3.6 million more people escaping poverty than would happen through the effects of demographics alone.

The reason behind these strong impacts lies in the relationship between the number of children in a household and its poverty status. We find that in Namibia, for example, the event of childbirth brings a

**FIGURE 10: INCLUSIVE GROWTH POLICIES WOULD FURTHER REDUCE POVERTY**



Note: Poverty rates are calculated using the US\$3.10 a day poverty line at 2011 Purchasing Power Parity.

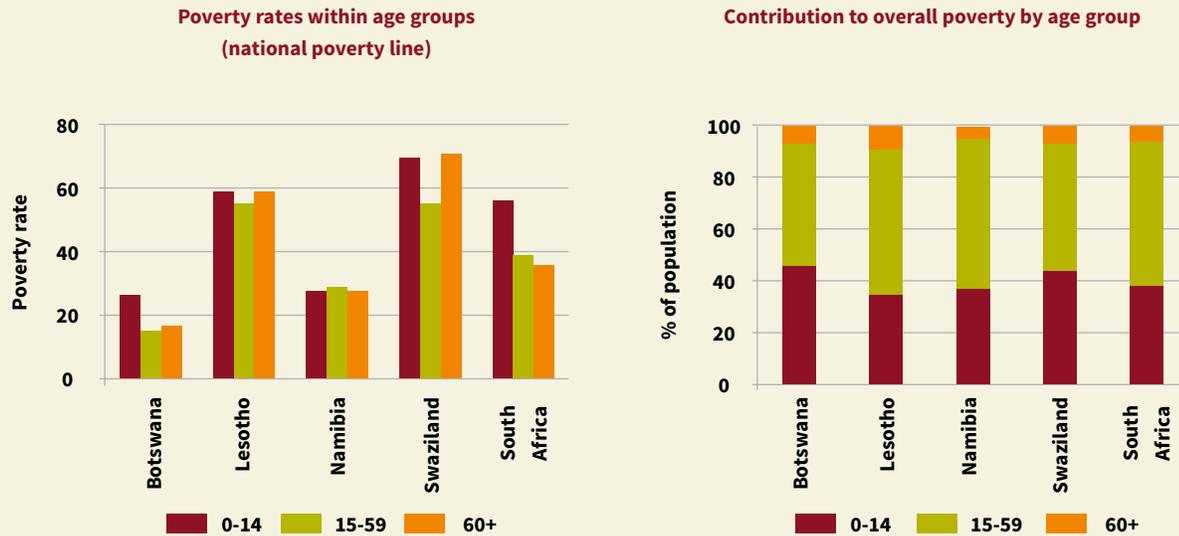
Source: Ahmed and Cruz 2015.

strong increase in the probability of being poor: a household that goes from having no children aged up to six years to having one child of this age also acquires a 78 percent higher chance of being poor, after controlling for the head of household’s gender, education, and employment status. Similarly, households with two children of this age are twice more likely to be poor than households with no children of such age. In all countries of Southern Africa except Lesotho, households with seven or more members are about 30 times more likely to be in poverty than households with just one member.<sup>17</sup> In the five countries, the poverty rate ranges from 30 to 60 percent among households with seven or more members.

Poverty rates tend to be highest among children (aged 0-14) and the elderly (60-plus), but because there are many more children than elderly, the absolute numbers of poor children outweigh by far the numbers of elderly poor (Figure 11). In Botswana, Lesotho, and South Africa, for instance, there are six times more poor children than poor old people.

Taken in sum, this evidence shows how badly children and adolescents in Southern Africa need with an escape route from poverty through solid social, education, and labor market policies. Barring this, the vicious intergenerational cycle of poverty will not be broken, and countries’ social and economic inequities will persist.

**FIGURE 11: THERE ARE MANY MORE POOR CHILDREN THAN ELDERLY POOR**



Note: Data are for 2010. Source: Authors' own elaboration based on data from the World Bank database ADEPT Poverty.

### BOX 5: FERTILITY AND CHILD POVERTY

Demographic factors play an important role in determining and amplifying the association between poverty and children. Fertility is higher among poor households, especially in the first phase of the fertility transition. As early as the 1970s, Ahluwalia wrote about a differential demographic transition across low- and high-income households.<sup>18</sup> Compared to the non-poor, the poor typically experience declining mortality and subsequently falling fertility at a later stage, and with a longer lag between the two. It can be rational from the point of view of poor parents to have more children.<sup>19</sup> Among other factors, the quantity-quality tradeoff<sup>20</sup> may be remote for these parents, since it would require unaffordable savings and risky investments in their children for the future versus a present-time high opportunity cost from foregone youth income and contribution to old-age security.

Evidence for Southern Africa confirms that higher fertility tends to be associated with low levels of income, with ethnicity, and with residence in rural areas, all dimensions that tend to determine lower standards of living and less access to opportunities in these countries.<sup>21</sup> In South Africa, for instance, fertility of the black population is still higher than that of the other racial groups, although it continues to decline. Similarly, a differential demographic transition in urban versus rural area is a common feature of all countries in Southern Africa.<sup>22</sup>

# 4. INVESTING IN GOOD JOBS IS INVESTING IN THE NEXT GENERATIONS

As the previous chapter showed, there is an important relationship between demography and labor markets, which affects countries' ability to harness the demographic dividend.<sup>23</sup> Demography shapes labor markets through the size and composition of the labor force. But a well-functioning labor market is essential to ensuring that an economy can take advantage of demographic changes. The only way to reap the full benefits of the demographic dividend is to provide current and future generations with good jobs.

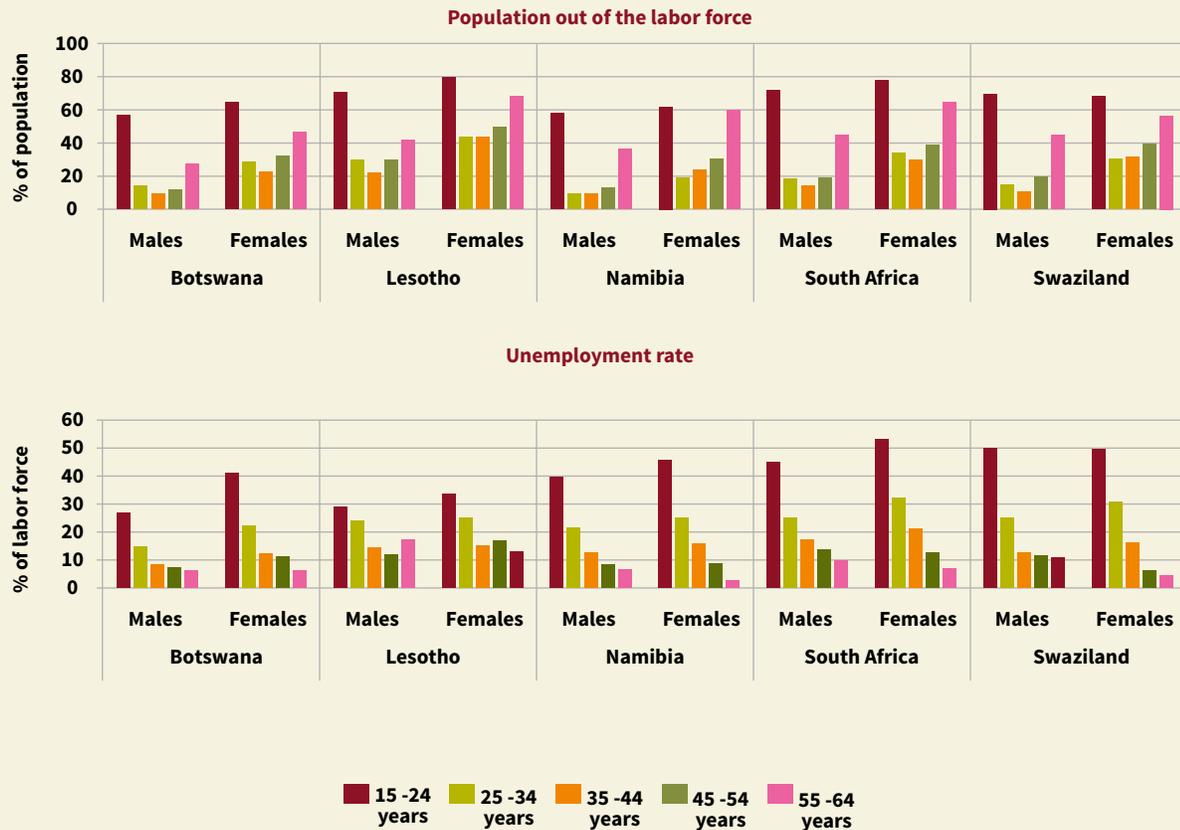
## **Working-Age, but Not Working**

Southern Africa's labor markets face significant performance challenges: many members of the working-age population are out of the labor force, meaning they are neither working nor looking for work. Among men, between 28 percent (Botswana) and 45 percent (Lesotho) are out of the labor force; the percentage is even higher among women, ranging between 41 percent and 60 percent. The sub-region's overall unemployment rate (comprising people who are seeking employment but haven't found it) ranges between 17 percent in Botswana and 26 percent in Swaziland (Figure 12).

These figures are high by international standards; in most low-income countries unemployment is low—especially for males. And in the OECD countries, only 20 percent of men and 40 percent of women are out of the labor force. Having so much of the population idle (in some cases, the majority of the working-age population) hinders economic growth, equity, and poverty reduction. The economy is underutilizing a valuable resource—labor—while at the same time it needs to provide for its dependent population.

Matters are particularly grim among younger workers. Between 11 and 31 percent of males aged 25-34 are out of the labor force (Figure 12, upper panel). The proportion is even higher for males aged 15-24, but many of them might be studying. Concerning the unemployed (people who are looking for jobs but

**FIGURE 12: LACK OF EMPLOYMENT IS A CRITICAL ECONOMIC CHALLENGE**



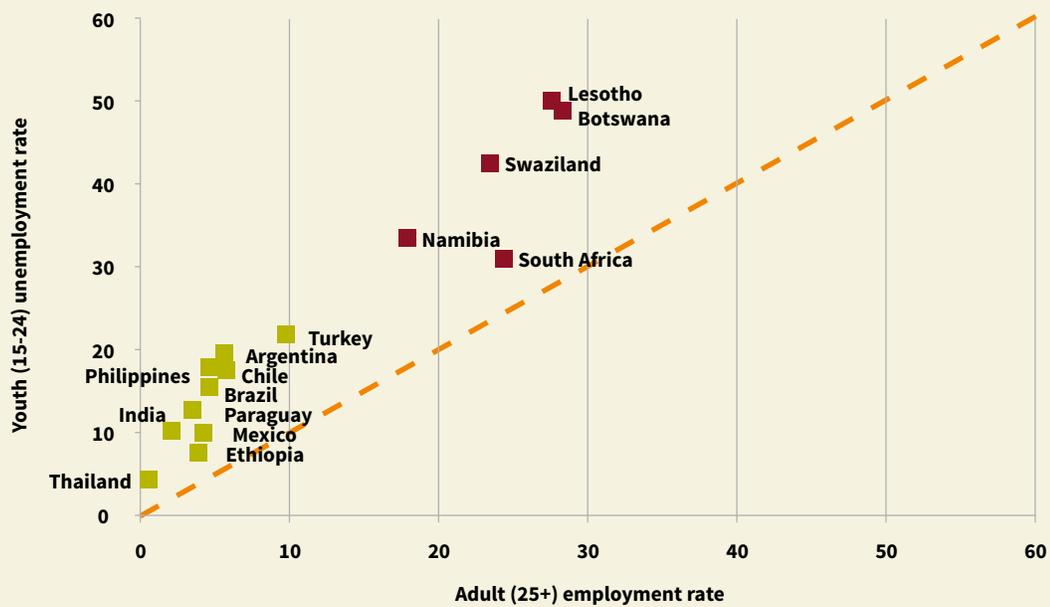
Source: Authors' own elaboration based on Margolis and Yassine 2015.

not finding them), rates in the male 15-24 group range from 27 percent in Botswana to a full 50 percent in Swaziland (Figure 12, lower panel).

The level of youth unemployment in Southern Africa is much higher than those of economically comparable countries and, with the exception of South Africa, the ratio of youth to adult unemployment is also higher (Figure 13). All in all, unemployment among youth means a double loss: the economy is forgoing the economic benefit of more workers, and of the very cohorts that have achieved historically high levels of education.

The wide gender gaps in the sub-region's labor markets play their own role in undermining economic efficiency and the countries' ability to exploit the demographic transition. Female unemployment tends to be higher than males' (up to 8 percentage points higher for women aged 25-34), even though women

**FIGURE 13: YOUTH UNEMPLOYMENT IS MORE SEVERE THAN IN MOST EMERGING COUNTRIES**



Source: Authors' own elaboration based on Margolis and Yassine 2015 and ILO data, ca. 2010.

are about 15 percentage points more likely to be out of the labor force (as much as 22 percentage points for women older than 35). To address this gap, policies aimed at increasing labor force participation among women, should go hand in hand with general employment promotion policies. In South Africa, for instance, female labor force participation has been growing at a faster rate than males'. Unfortunately, a significant part of the increase in female participation translated into more unemployment, not employment—that is, women began looking for work but couldn't find it.<sup>24</sup>

Long spells without work have severe enduring impact on workers' employment prospects and earnings potentials. Skills are lost or never obtained—especially job-specific and non-cognitive skills. This hinders the productivity of workers and conveys negative signals to employers.<sup>25</sup>

## BOX 6: HIV/AIDS AND LABOR MARKETS

The HIV/AIDS epidemic has harmed labor markets through multiple channels that interact at different levels (see Figure 14 below).<sup>26</sup> Thanks to widespread distribution of anti-retroviral treatment (ART), countries in Southern Africa have managed to reduce significantly the costs associated with HIV/AIDS-related mortality. Still, costs of morbidity (illness) persist. The most direct effect is a decrease in sick workers' productivity due to illness or worry.<sup>27</sup> The empirical literature on the positive effects of ART on productivity of sick workers is still very limited. An interesting look comes from the quasi-experiment conducted by Larson et al. in a 2013 study of workers on tea plantations in Kenya. The study found a rapid deterioration in productivity for HIV-infected subjects in the period before ART treatment and then a rapid improvement after treatment begins. However, 18–24 months after the start of treatment, the infected group still harvested less tea than did non-infected workers—8 percent less for males and 19 percent for females. The authors conclude that ART cannot completely offset the loss in labor productivity associated with HIV/AIDS.

**FIGURE 14: CONCEPTUAL FRAMEWORK: IMPACT OF HIV/AIDS ON LABOR MARKETS**

Main channel	Level of analysis		
	Household	Firm/Sectors	Country
<b>Mortality</b>	Change in family structure, number of orphans; costs associated with mortality, consequent difficulty in investing in human capital.	High turnover; change in skill composition of the labor force; change in demand for specific goods.	Smaller population and labor force; changed age structure of population and labor force; availability of skills; changed labor force participation rates.
<b>Morbidity</b>	Increased expenditure on health care; reduced savings; reduced investment in physical and human capital for the non-sick.	Reduced productivity due to workers' time off for sick leave or to look after sick family member; increased expenditure on health care and training; sick pay; increased business uncertainty; reduced investment.	Reduced productivity at work due to illness or worry; increased expenditure on health care and training; sick pay; reduced savings and investment.

Source: Authors' own elaboration based on Whiteside 2001, Hosegood 2009, Collinson et al. 2014, and Jefferis et al. 2008.

Also, not all work hours lost to HIV/AIDS are caused by the disease's physical debilitation. Workers may devote significant time to receiving treatment, as the distribution of ARTs is not always efficient.<sup>28</sup> Absenteeism can rise among non-sick workers as well, particularly women, as they look after sick family members.<sup>29</sup> Because of the concentration of HIV/AIDS among lower socio-economic groups, morbidity effects will likely be higher for unskilled and semi-skilled workers.<sup>30</sup>

Overall, there is still no firm understanding of the quantitative impact of ART on labor productivity, although the treatment has undoubtedly softened the impact of HIV/AIDS on labor markets. Similarly, there is no final word on when the decreased productivity will likely end, even though the epidemic is being controlled in steps,<sup>31</sup> treatment is becoming increasingly available and affordable through public and NGO provision, and the rate of transmission from infected mothers to children is decreasing.<sup>32</sup>

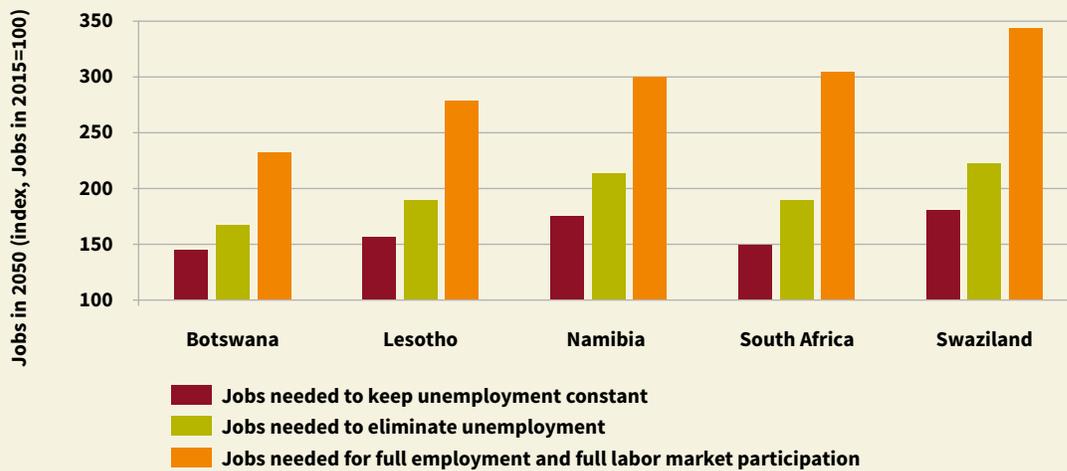
## **Demographic Dividend or Demographic Bomb?**

Over the next decades, labor markets are likely to grow more precarious as the demographic transition adds millions of workers to the labor force. For the demographic dividend to bear its fruits, a country needs more than an increase in the number of people of working age relative to dependents. It needs new jobs and ways to match the new workers with them. If this does not happen, the demographic dividend could become a demographic bomb: large cohorts of young people without work would mean a tragic loss of human and economic potential.

Margolis and Yassine demonstrate how big that challenge will be in Southern Africa.<sup>33</sup> South Africa will add almost ten million people to the current working-age population by 2050, a 28 percent rise. Other countries are facing increases that are even larger in relative terms: 29 percent in Botswana, 36 percent in Lesotho, 53 percent in Namibia, and 43 percent in Swaziland.

Creating jobs for all these new entrants will require strong policy efforts and large investments. As Figure 15 shows, many more jobs will be needed just to keep current employment numbers from falling. For instance, to hold current rates steady forward to 2050, Botswana will need to create 340,000 jobs, Lesotho 400,000, Namibia 580,000, South Africa 7.1 million, and Swaziland 250,000 (Figure 15). If countries are to employ the whole working-age population (including people who are now out of the force), the magnitude of the challenge climbs even further: by 2050 Botswana would need one million extra jobs, (134 percent more than exist today), Lesotho 1.2 million (178 percent), Namibia 1.5 million (201 percent), and Swaziland 760,000 (244 percent). South Africa would need a staggering 29.5 million additional jobs (204 percent more than it has at present). Clearly, employing the entire working-age population is an unrealistic, and possibly an undesirable target, as some people will always be studying, or taking care of family. However, the promise of the demographic dividend is based on an increase in the proportion of working-age over dependent population; this promise is empty if the working age are either out of the labor force or do not find employment. Figure 15 gives a sense of the magnitude of the challenge these countries face to harness the first demographic dividend in its full potential.

**FIGURE 15: HARNESSING THE DIVIDEND REQUIRES INCREASING BOTH PARTICIPATION AND EMPLOYMENT**



Source: Authors' own elaboration based on Margolis and Yassine 2015.

## From Precarious to Promising Youth: The Importance of Productive, Good-Quality Jobs

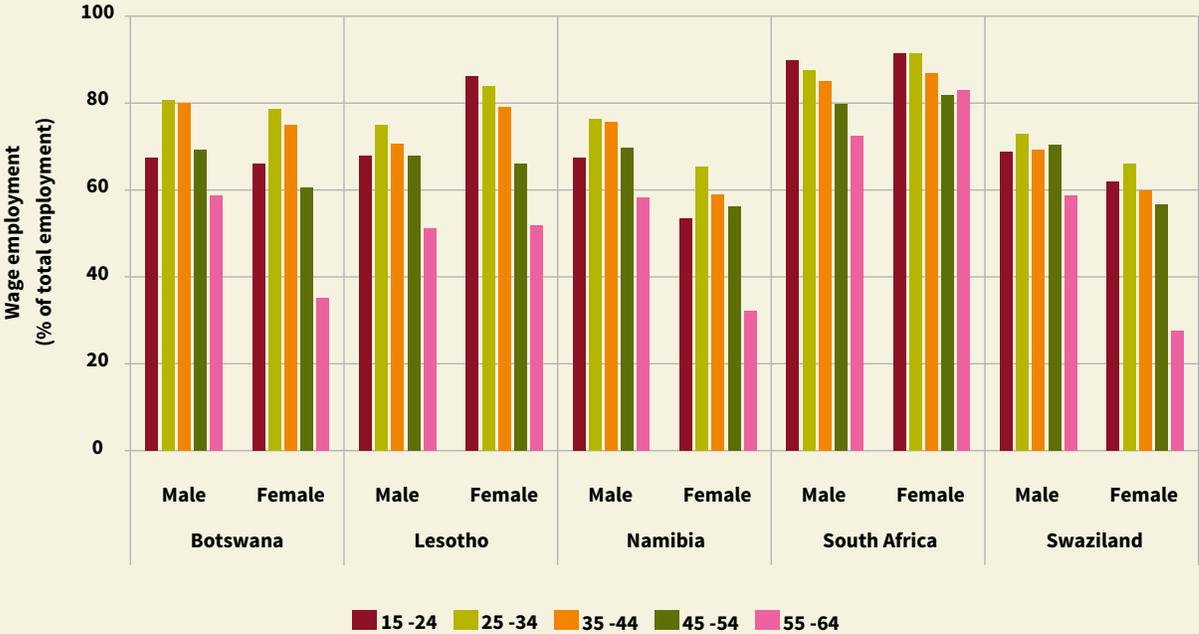
An even more severe challenge will be the creation of *good* jobs, which will give the next generation productive, fairly paid working lives that will allow them to save and invest, and bring on the benefits of both the first and second demographic dividends. A first, good job provides a good start in life. In the right job, young workers are able to learn new skills, and refine the ones they learned in school. They are also more likely to learn the non-cognitive aspects of a job, such as punctuality, team spirit, and conflict-resolution skills. Good jobs and, eventually, formal jobs improve people's likelihood to earn and save more, which are essential prerequisites to grasping the full potential of the first and second demographic dividends. Good jobs also make people better prepared for a life out of poverty during old age. For the economy as a whole, good jobs mean higher overall productivity of the labor force, and thus higher growth and welfare.

Wage employment, when compared against self-employment and unpaid family work, tends to provide higher productivity and a better environment for learning skills. To be sure, this is not always true, but the presence of an employer and older peers tends to improve the on-the-job learning experience.

Unfortunately, many young people in Southern Africa may never enjoy these positive conditions: in all countries but South Africa about a third of the entrants into the labor market are either self-employed or unpaid family workers (Figure 16).

These findings are consistent with existing literature documenting the low-quality, low-productivity jobs available to youth. In South Africa, about 40 percent of young workers are not covered by social security, compared to about 25 percent among adults.<sup>34</sup> In Swaziland, temporary employment or employment without contract or with no social security benefits is especially common among young workers,<sup>35</sup> indicating that Swazi youth are largely confined to low-productivity jobs. In Lesotho as of 2008, 83 percent of employed youth worked in elementary occupations, agriculture or fishery, which are usually low-productivity, low-pay sectors, against 41 percent of all employed people.<sup>36</sup> In South Africa, about 500,000 young workers lost their jobs between 2008 and 2011, even as 280,000 additional adults found employment during the same period.<sup>37</sup>

**FIGURE 16: WAGE EMPLOYMENT REMAINS RELATIVELY LOW AMONG YOUTH**



Source: Authors' elaboration based on Margolis and Yassine 2015.

Both high unemployment and low-quality jobs are common among youth regardless of levels of education. This has led several researchers to point to the existence of a skill mismatch. In Swaziland, for example, the skills taught at the graduate level of education and those demanded by employers are so out of synch that achieving a higher level of education does not necessarily translate into success in the labor market.<sup>38</sup> South Africa has a similar challenge at the tertiary level of education, especially in choice of field of study. Enrollment is particularly high in humanities, arts and education, in spite of an over-supply of graduates from these fields and an under-supply of graduates from fields such as engineering and medical sciences. In any case, employers see little value in diplomas from many institutions due to low-quality instruction.<sup>39</sup> At the high-school level, the high variation in the quality of education across institutions constitutes a major problem, as simply holding a secondary school diploma does not convey sufficient information to employers.<sup>40</sup> Finally, employer surveys and qualitative research from Botswana and Lesotho highlight that employers rate “soft skills” such as honesty, commitment, punctuality, and team working skills as both crucial and the hardest to find in prospective employees.<sup>41</sup>

How to create good jobs for youth is a policy challenge that extends beyond the scope of this report. But with the vast majority of jobs arising in the private sector, governments can help the process along by fostering the right environment. Their responsibilities include maintaining macroeconomic stability, devising labor regulations that address market distortions without impairing efficiency, and ensuring respect for the rule of law.<sup>42</sup> Our concern in this report is not the role that government plays in creating jobs, but nurturing people qualified to hold them, through social policies that enable the next generations to develop their human capital and enter the labor market competitively. We cover this topic in the next section.

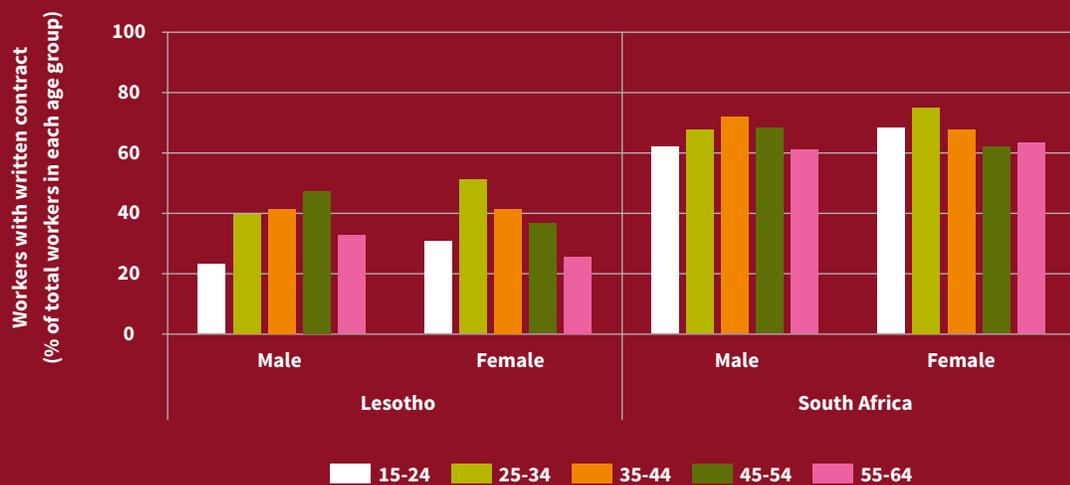
## BOX 7: SHOULD WE WORRY ABOUT INFORMAL YOUTH EMPLOYMENT?

Informal employment is pervasive in Southern Africa, particularly among youth. In Lesotho, 75 percent of males aged 15-24 and 69 percent of females do not have a contract. Even in South Africa, the region's most advanced economy, close to a third of young workers work without a contract (Figure 17).

To the extent that informal employment means precariousness and low-skilled work, it is a drag on youth's long-term prospects. But promoting formal employment among youth just for the sake of formalization is not necessarily the optimal (nor a realistic) policy response.

Older workers need greater job security, and have to start saving for retirement. But what young workers need are jobs in which they can learn and grow professionally, building a solid base of skills, and improving future employment prospects. Often, these gains come with formal employment. But not always – think, for instance, at informal apprenticeships. From a policy perspective the priority should be to promote creation of jobs that allow young workers to grow professionally, as opposed to formalization.

**FIGURE 17: INFORMAL YOUTH EMPLOYMENT IS HIGH**



Source: Authors' own elaboration based on Margolis and Yassine 2015.

# 5. SPEND IT WELL: REBALANCING SOCIAL SPENDING TO PROMOTE LONG-TERM INCLUSION AND GROWTH

Social spending plays a double role in the well-being of a population. First, it has an important *protection* function for people who are not able to work, such as the elderly. It allows households—especially poor ones—to cope with major shocks, such as health crises, natural disasters, and spells of unemployment. Second, social spending has a fundamental *promotion* function. It fosters good education, nutrition, and medical care, which lead to healthy and productive future generations. Conditional cash transfers and active labor market policies can help poor people and their children—and the generations that follow—leave poverty behind.

Balancing the protection and promotion roles of social spending can be a challenging task. Given that budgets are finite, it means tradeoffs between the needs of the current generations versus those of tomorrow. With these thoughts in mind, we review in the next sections forecasts in social spending and discuss policy proposals to improve both its roles.

## **Who Gets What? Assessing the Evolution of Fiscal Space in Social Sectors**

To analyze the likely future trade-offs that governments in Southern Africa will have to make, we estimate future spending on social sectors using the National Transfer Accounts (NTA) methodology. The NTA allows to estimate social spending per single age (see Box 8), which we use to project the evolution of aggregate social spending in the future based on the changing demographic profile of the population.

Our estimates suggest that social spending trade-offs across different age groups in Southern Africa are unlikely to be as pressing as in other countries. In fact, the ongoing demographic transition on its own has the potential to free up fiscal resources in the next decades to support improvements to both the protection and promotion roles, as well as guarantee sufficient resources for both young and elderly. Lower school enrollment rates will allow a shift in priorities towards *quality* of education. A relatively moderate aging of the population will not add significantly to the burden on the health system to address

the growth of non-communicable diseases. Slow aging will also keep the fiscal pressure moderate, for a few decades, on providing social pensions to the elderly poor.

## **BOX 8: THE NATIONAL TRANSFER ACCOUNTS METHODOLOGY**

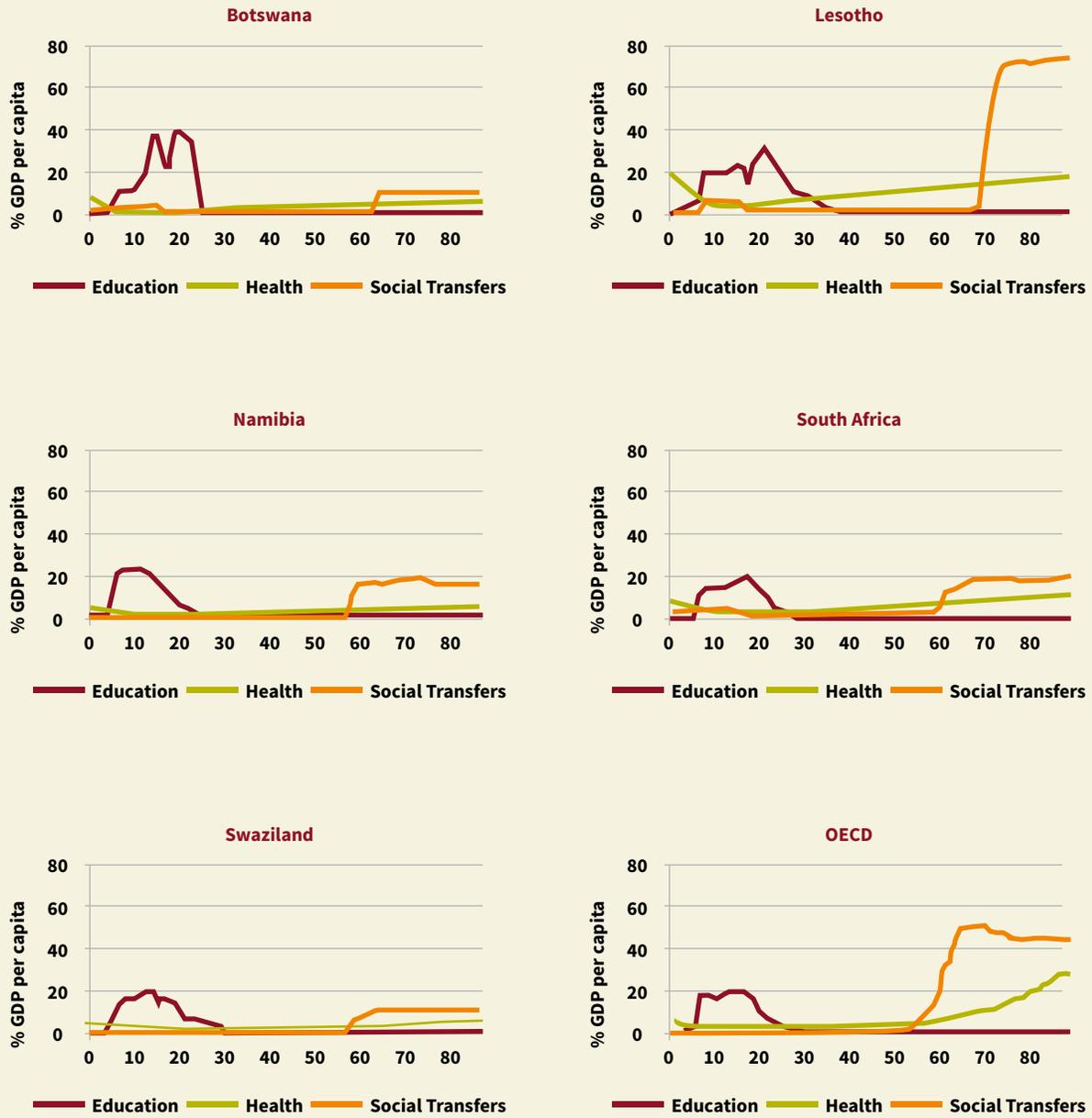
The National Transfer Accounts (NTA) framework was developed to analyze the “generational economy,” which Lee and Mason define as “the social institutions and economic mechanisms used by each generation or age group to produce, consume, share, and save resources”.<sup>46</sup> In all contemporary societies, intergenerational transfers are large and play an important role in equality and growth. These flows arise primarily because of a fundamental feature of the economic lifecycle: children and the elderly consume more than they produce. The development of each generation of youth depends on the resources that it receives from productive members of society for health, education, and sustenance. Similarly, the wellbeing of the elderly often depends on familial support and social insurance programs.

The public sector plays a key role in financing the consumption of people who are in dependent ages. For example, to talk of “public education” or “the public health sector” is to implicitly refer to consumption of services financed by the state. Similarly, social cash transfers and public pensions aim at supporting income during years of deficit in the life cycle. The focus of this report is to discuss how public policies can interact with a changing age structure of the population to deliver the maximum well-being to citizens. To this aim, we focus on a specific part of the NTA framework that Oosthuizen estimates for Southern Africa: public social transfers (or “inflows” in the NTA terminology), including education, health, and social assistance transfers (cash or in-kind).

The key technical aim of NTA is to quantify economic flows for single-year age cohorts. The estimation procedure is as follows. First, the average public inflow received by an individual at each single age, in each social sector (education, health, social assistance), is imputed using microdata from national surveys. Second, the age profiles of public inflows are smoothed to avoid potential “noise” from the age-specific samples. Third, the aggregate value of public inflows at each age is estimated by multiplying the individual age profile for the country population by age. Finally, individual age profiles are rescaled so that the aggregate value of public inflows coincides with the official budget recording of public current consumption/transfers in each social sector. In this way, the micro and macro perspectives are combined to estimate how much consumption at each age is financed through public education, health, and social assistance transfers.

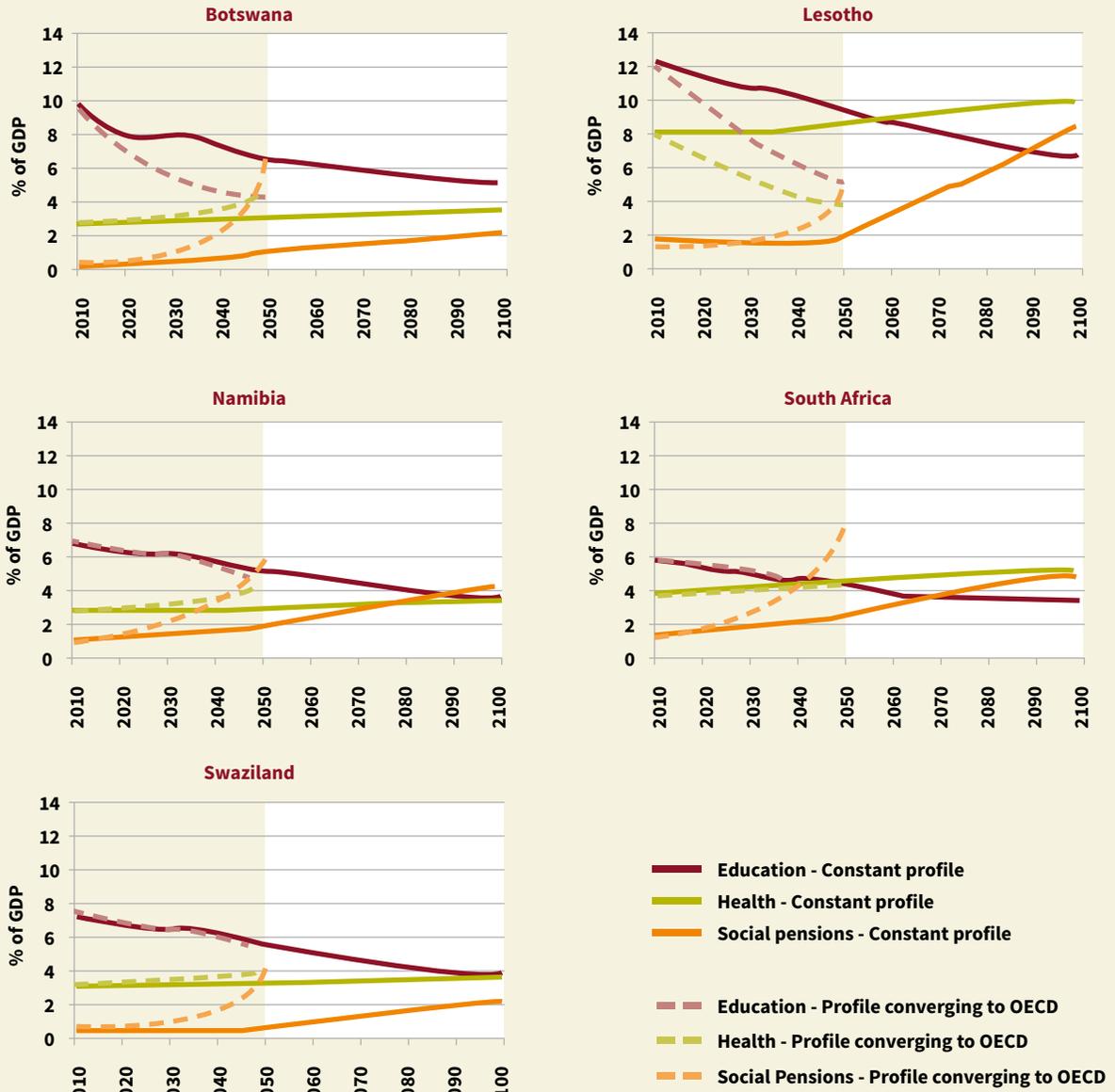
Currently, 33 countries from the Americas, Europe, Asia-Pacific, and Africa are taking part in the project. A detailed methodology and other information can be found at [www.ntaccounts.org](http://www.ntaccounts.org).

**FIGURE 18: SOCIAL SPENDING ACROSS THE LIFE CYCLE**



Note: The OECD profile represents median values of the profile of 14 OECD countries. Source: Oosthuizen 2015.

**FIGURE 19: SOCIAL SPENDING FORECASTS, 2010-2050**



Note: the OECD profile represents median values of the profile of 14 OECD countries. All data are for public spending.  
Source: Oosthuizen 2015.

The relatively low fiscal pressure on social spending in Southern Africa is a luxury that few other countries currently enjoy, and it allows for time and fiscal space to invest in both the current and future generations. This is a welcome opportunity: large inequalities, important remaining pockets of poverty, poor educational outcomes, and high youth unemployment are taking a toll on the new generations—and the countries' future. It is important to act now. The consequences of inaction will silently accumulate over the better years of the demographic transition, to eventually emerge at a time when addressing them will be much more difficult and costly.

In the remainder of this section, we examine the implications of the NTA analysis for each of the three key social sectors—education, health, and social assistance.

### **BOX 9: UNCERTAINTY IN REVENUES TO FINANCE SOCIAL SPENDING**

To fund their budgets, governments in Southern Africa depend heavily on the Common Revenue Pool (CRP), which is fed by revenues from the Southern African Customs Union (SACU). Swaziland is the most dependent, obtaining more than half its government expenditures from the CRP. Lesotho comes second, at 40 percent. Botswana and Namibia are also significantly dependent, but to a lesser extent.<sup>43</sup> Revenues from SACU have recently declined due to lower-than-expected import receipts, and are projected to continue on a low trajectory in the medium term. Slowing growth in South Africa poses a challenge to the sub-regional economy and the country's ability to drive the smaller economies.

If SACU revenues continue along these grim forecasts, and governments do not offset the fall through such steps as improving efficiency of the public sector, these countries will find it increasingly harder to keep up current levels of social expenditure and maintain the sustainable fiscal path identified in the NTA projections. There is already evidence, for instance, that falls in SACU have undermined the enrolling of more people in anti-retroviral programs and the ensuring of consistent supply of medicines to those already receiving this treatment.<sup>44</sup>

External funding, such as grants from international donors, is also in question. Lesotho, Swaziland, and Namibia rely significantly on this funding for their HIV/AIDS programs. Specifically, the U.S. President's Emergency Plan for AIDS Relief and the Global Fund for AIDS, Tuberculosis and Malaria have historically provided the greatest financial support. Uncertainty about the future of funding from these sources is hindering plans for more ambitious prevention and treatment strategies in the long run.<sup>45</sup>

## **Education: Addressing the Quality Challenge**

The public education spending of Southern African countries is for the most part close to the median spending of OECD countries, when measured as a percentage of GDP per capita (Figure 18). This is particularly true for basic education, where the sub-region's countries spend on average slightly less than 20 percent of GDP per capita per student, compared to a median of 20 percent for the OECD. In higher education, Botswana and Lesotho show markedly higher spending, ranging between 30 and 40 percent of GDP per capita. These levels are driven to some extent by university scholarships, which raises equity considerations because poorer students are less likely to attend higher education institutions. However, at least for basic education, the analysis suggests that the high rates of aggregate public spending in Southern African countries are a direct consequence of the high number of children who need to be educated.

The demographic transition therefore represents good news. The drop in fertility rates means that in the future there will be fewer children to educate. For that reason, public education expenditures under current spending scenarios are forecast to drop between 20 and 25 percent between now and 2050, and between 40 and 45 percent between now and 2100 (Figure 19). Specifically, a scenario in which both enrollment and spending converge towards the median OECD values has spending either remaining similar to forecasts in which age profiles of spending remain constant, or, in Botswana and Lesotho, where tertiary education spending is high, dropping even further.

While there remain important challenges in education coverage, the demographic transition opens up a chance to invest not only in greater coverage but better quality of education. This is particularly important for Southern African countries, which consistently perform below average on the quality dimension—an important factor affecting labor market outcomes and productivity.

Chapters 2 and 3 of this study highlighted how benefits from an evolving population structure will only materialize if people of working age have the right skills to find productive employment. The education systems in Southern Africa can help meet that goal by focusing on three areas: investing in early childhood development, improving the quality of basic education, and laying down the institutional basis to provide high-quality tertiary education. These are discussed below.

### ***Investing in Early Childhood Development***

Early childhood development (ECD) is a fundamental component in the creation of opportunities for children, but it receives limited funding in Southern Africa. In the sub-region, the education spending profile remains very low between ages 0 and 6, and picks up only at primary school level (Figure 18). UNICEF notes that “it is difficult to report on ECD access largely due to the age range of children involved, and the varied approaches used.” According to UNESCO, less than 1 percent of children aged 0-5 are enrolled in ECD programs in Botswana, less than 4 percent in South Africa, and approximately 10 percent in Namibia.

In all cases, integration with specific health services for children is difficult or non-existent. Despite these grim numbers, however, there is evidence that overall the situation of coverage is improving.<sup>47</sup>

The value of ECD has been repeatedly demonstrated in the literature. Nobel Laureate James Heckman and his co-authors have shown that returns on investment are greatest for the young because younger children can generate a return over a longer time horizon, and because “skills beget skills.” Investing in disadvantaged young children reduces inequality and raises the productivity of society at large.<sup>48</sup> Early investments in high-quality ECD programs have higher returns and may be easier to implement than later investment and remediation for disadvantaged young adolescents.<sup>49</sup>

Two caveats are important to note in ECD. First, attendance does not guarantee improvements in learning, especially among the poorest children. Quality of service is critical to yielding positive outcomes in early childhood. South Africa’s recent experience with the ECD conditional grant Grade R program (the year preceding Grade 1, also called reception year or Grade 0) is testament: while the grants led to access to jump from 40 percent to universal over fifteen years, Grade R did not have significant effect on learning outcomes in mathematics or language for children from the lowest three quintiles of income. The government is implementing an improvement plan, which includes development of Grade R regulations, improved pre-service and in-service training for Grade R practitioners, and culturally relevant teaching and learning materials for children and their parents or caregivers.<sup>50</sup>

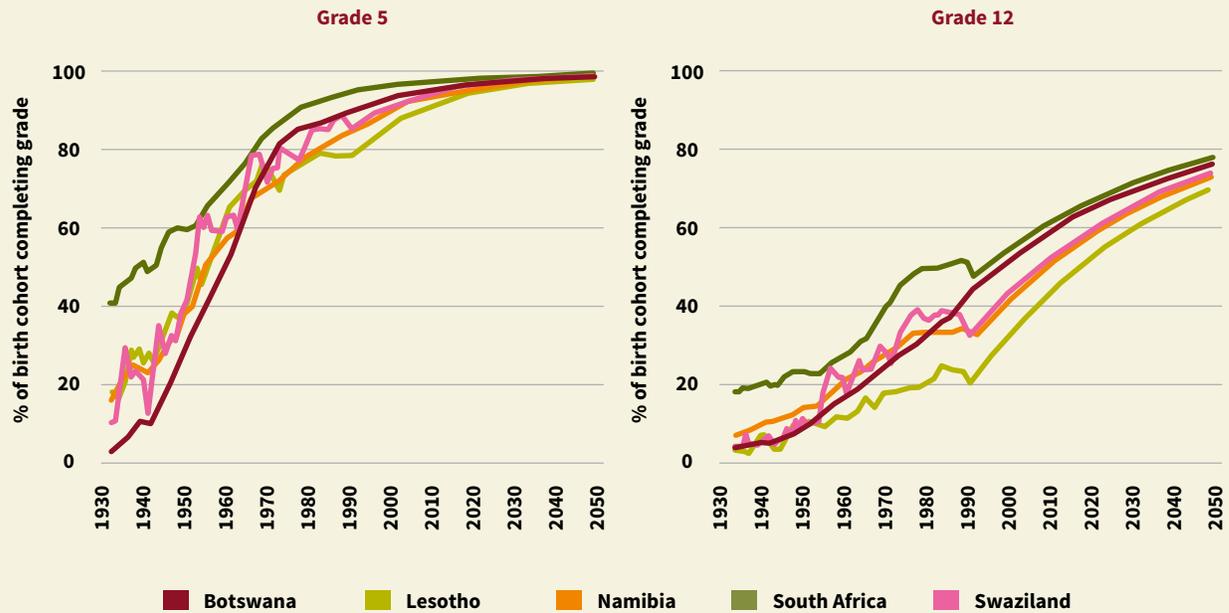
Secondly, in many countries, ECD services are often provided by communities, faith-based organizations or private for-profit entities, formal and informal. In this context, effective regulation by government is critical to ensuring quality of services and guaranteed access for the poorest children. For example, Seychelles is now developing its quality-assurance standards to better monitor private care providers for children ages one to four years old. Also, engaging families in community-based ECD services is important to ensure attendance and that programs are aligned with cultural and family expectations. In some programs, grandparents, parents and other caregivers are formally engaged as volunteers. These include NGO programs in Uganda, Tanzania, Rwanda, and South Africa, as well as in Turkey and the United States.

Importantly, strong linkages with secondary education can help promote access to ECD services. For instance, teen-aged mothers can remain in school if programs provide them with childcare. A vulnerable teenage girl who has a baby is unlikely to go back to school (see Box 11) unless there is a safe place for the child while she is studying. This approach also promotes positive cognitive and socio-emotional development for both the mother and the child if the care quality is high.

### ***Basic Education: Beyond Coverage, Towards Quality***

Most Southern African countries have managed to reach close to universal completion of primary school. Nevertheless, major work remains to achieve high enrollment rates at the secondary level. Van der Berg and Knoesen project completion rates based on historical enrollment and demographic trends. Currently, only between 20 and 50 percent of the cohorts born in the late nineties manage to complete grade 12.

**FIGURE 20: ENROLLMENT RATES ARE STILL LOW AT THE SECONDARY LEVEL**



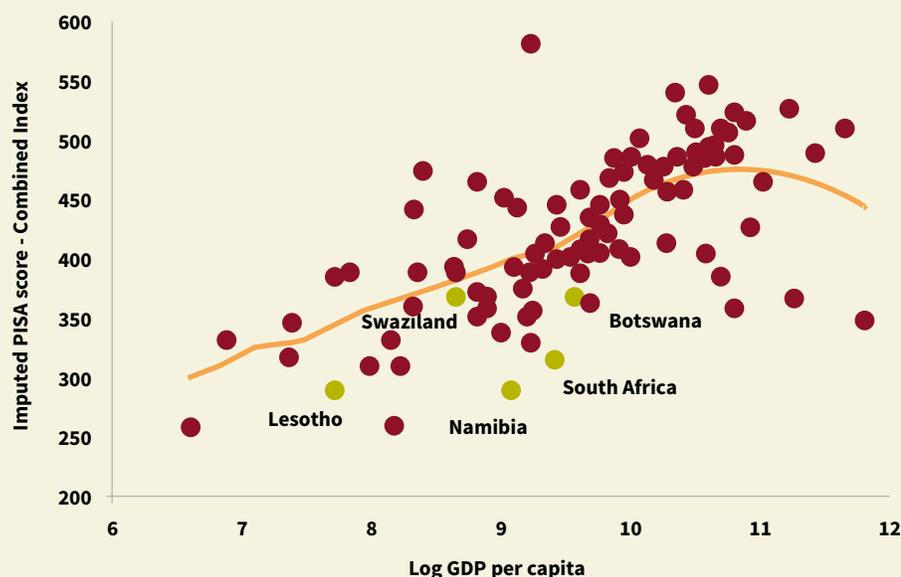
Source: Van der Berg and Knoesen 2015.

If current trends continue, universal secondary completion rates will require continued investments for decades to come (Figure 20). In South Africa, only 60 percent of the cohort born in 2010 is expected to complete grade 12—an achievement that in Lesotho will not come until the 2030 cohort.

Coverage alone will not suffice, however. Higher quality of education is also needed. In the imputed PISA measurement, all Southern African countries score below what their level of development (captured by GDP per capita) would imply (Figure 21). In fact, Lesotho, Namibia, and South Africa have among the lowest scores in the PISA sample.<sup>51</sup>

Improving quality of education is a slow and painful process. One study found an average improvement of only 0.8 PISA points per year across a large number of countries, although for non-OECD countries the rate was higher - 3 points per year<sup>52</sup>. The best consistent average annual improvements were for Brazil (5.9 points per year) and Chile (4.5 points). Even at the top-performing convergence rates, it would take decades for a country such as South Africa to reach the average predicted by its level of development. Importantly, improving the quality of education is not simply about increasing investment and spending per pupil, as it requires creating a solid institutional framework.<sup>53</sup>

**FIGURE 21: QUALITY OF EDUCATION IS POOR ACCORDING TO INTERNATIONAL STANDARDS**



Note: Estimates are for 2011. Source: Van der Berg and Knoesen 2015, based on Gustafsson 2014.

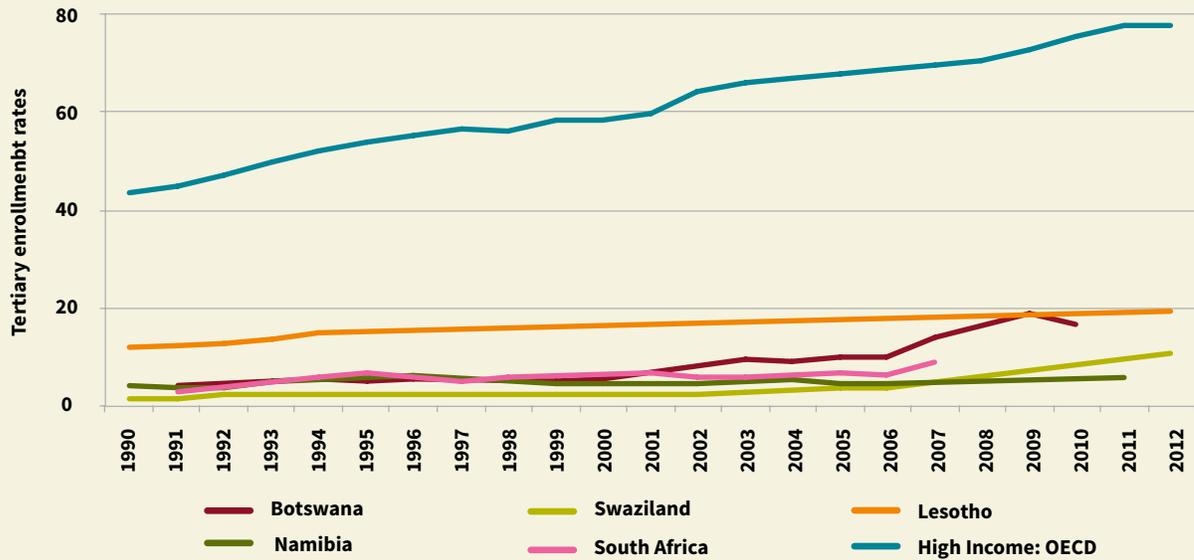
### ***Unmet Demand for Tertiary Education: An Opportunity for Getting It Right***

Although tertiary enrollment ratios are growing significantly, they remain far below those of OECD countries (Figure 22). The low numbers do not necessarily reflect low demand, but perhaps instead a limited supply of seats in tertiary institutions and low funding for students to pursue further education rather than working. Analyses of the education sector suggests that latent demand is much higher than observed demand.<sup>54</sup>

Demand is projected to rise even further as the larger cohorts of young people reach tertiary schooling age, and the proportion of students completing Grade 12 continues to rise. Consequently, the pressure to provide more places in tertiary institutions will increase, posing a challenge for governments.

Quality concerns are likely to be acute, as pressure mounts to grow the tertiary education sector in spite of a short supply of skilled staff. Poor-quality tertiary education is bad for students, equity, and growth. It is a costly investment that delivers few productivity gains or higher wages for poor and vulnerable individuals who cannot afford to attend better institutions. In many countries, the unregulated growth of tertiary education has led to a proliferation of degrees that are in essence worthless. In the most extreme cases, degrees provide *negative* returns—that is, students would have greater lifetime incomes if they did not obtain these degrees.<sup>55</sup>

**FIGURE 22: TERTIARY ENROLLMENT REMAINS WELL BELOW OECD LEVELS**



Note: Tertiary enrollment relative to the population 18-22 years old. Source: Van der Berg & Knoesen 2015.

It is therefore important to lay down ahead of time the institutional bases that will regulate this education sector and guarantee the quality of the services it offers. The region needs independent certification and accreditation agencies, labor market observatories, and concerted financing and capacity-building to promote the development of quality colleges and universities. Furthermore, better targeting of public resources toward low- and middle-income families who could not otherwise afford tertiary education will be fundamental for promoting equitable benefits from the demographic dividend. It is vital to begin this process now. Overall, it will be much more difficult and costly to improve badly performing universities, than to get them right from the beginning.

## **BOX 10: CAN VOCATIONAL EDUCATION REDUCE THE SKILL MISMATCH?**

Vocational education is designed to give students the knowledge, skills, and competencies required for a particular occupation or trade. It often consists of a mix of classroom and on-the-job training. When successful, these programs instill valuable qualifications for the labor market. In Southern Africa, with only small numbers of students currently take part in vocational education and training (TVET), the sector has potential to develop and mature.

The main challenge with TVET is to ensure that the training is relevant. Much of the TVET available in Southern Africa is supply-driven and out of touch with market needs. Its quality often leaves much to be desired.<sup>56</sup> Courses generally focus on traditional entry-level qualifications such as mechanical, automotive, electrical, building, commerce, and sewing skills. They do not adequately cater to emerging sectors such as services, tourism, health care and the higher-level technology sector.<sup>57</sup> Many technical colleges fail to attract qualified lecturers. Employers see the schools as teaching few useful skills; students view them as the option of last resort.

Unless both quality and perceptions improve, technical education will do little to provide good jobs to Southern Africa's growing working-age population.

## **Health: Lost in the Epidemiological Transition**

Any demographic transition brings changes in the epidemiological profile of the population as well. In fact, demographic and epidemiological changes can be interpreted as two related effects of the same process: with higher life expectancy come new causes of death that begin to shift from the acute communicable diseases (CDs) associated with poverty to the chronic non-communicable diseases (NCDs) associated with higher-income societies.<sup>58</sup>

Southern African countries still have relatively young, slowly aging populations, with declining fertility rates. Lifestyles are changing rapidly, altering, among other things, consumption and day-to-day routines and habits. While CDs common in low- and lower-middle income countries are still widespread, NCDs are rapidly emerging as important causes of mortality and disability.

This is summarized in Figure 23, which presents the main diseases in each country that contribute to years of life lost (YLLs). In all countries of Southern Africa, HIV/AIDS, tuberculosis, diarrheal diseases, and lower respiratory infections (which result from chronic malnutrition) remain the main causes of YLLs. The main epidemiological profile remains much closer to Sub-Saharan Africa's than to those of developed economies. At the same time, however, NCDs are already emerging as secondary causes of YLLs, which

**FIGURE 23: NCDS EMERGING WHILE OLD DISEASES ARE STILL WIDESPREAD**

Leading causes of years of life lost	Developed countries	SSA	Botswana	Lesotho	Namibia	South Africa	Swaziland
1 <sup>st</sup> cause	Ischemic heart disease	HIV/AIDS	HIV/AIDS	HIV/AIDS	HIV/AIDS	HIV/AIDS	HIV/AIDS
2 <sup>nd</sup> cause	Stroke	Malaria	TB	TB	TB	LRIs	LRIs
3 <sup>rd</sup> cause	Lung, tracheal, and bronchus cancers	LRI	LRIs	Diarrheal diseases	LRIs	TB	Diarrheal diseases
4 <sup>th</sup> cause	Self-harm	Diarrheal diseases	Diarrheal diseases	LRIs	Diarrheal diseases	Diarrheal diseases	TB
5 <sup>th</sup> cause	Alzheimer's	Pre-term birth	Road injuries	Pre-term birth	Stroke	Violence	Road injuries
6 <sup>th</sup> cause	Cirrhosis	Neonatal Enceph.	Self harm	Violence	Self-harm	Stroke	Pre-term birth
7 <sup>th</sup> cause	COPD	Protein energy malnutrition	Pre-term birth	Neonatal enceph.	Road injuries	Road injuries	Self-harm
8 <sup>th</sup> cause	Colorectal cancers	Congenital defects	Neonatal enceph.	Self-harm	Pre-term birth	Ischemic heart disease	Violence
9 <sup>th</sup> cause	LRIs	Neonatal sepsis	Maternal death	Stroke	Ischemic heart disease	Diabetes	Stroke
10 <sup>th</sup> cause	Road injuries	TB	Violence	Road injuries	Violence	Pre-term birth	Neonatal enceph.

**Communicable Diseases**  
 **Non-communicable Diseases**

Note: COPD = chronic obstructive pulmonary disease; LRIs= lower respiratory infections; Neonatal enceph = Neonatal encephalitis (due to asphyxia and trauma); TB = tuberculosis.

Source: Global Burden of Disease, Institute for Health Metrics and Evaluation 2014.

has not yet happened in the rest of Sub-Saharan Africa. This shift is intimately related to Southern Africa's higher life expectancy, urbanization and changing lifestyles. It is also worth noting the disproportionate weight of violent deaths (deaths from external causes including road accidents, suicide, and gunshot/knife wounds) relative to more developed countries.

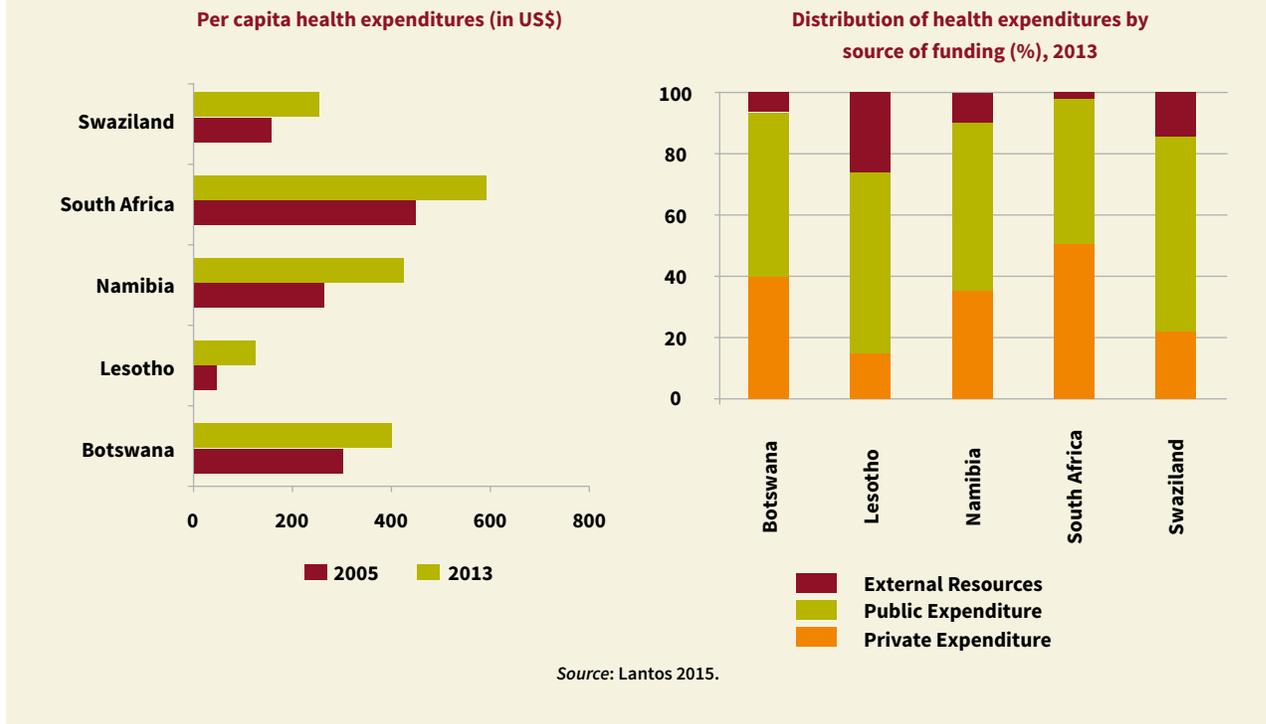
Going forward, economic growth, changing lifestyles and sustained rates of urbanization will bring further substantial changes in Southern Africa's epidemiological profiles. Pressure on the countries' health systems is likely to increase. Health spending, currently low relative to international standards, has already increased in recent years. Between 2005 and 2013, the share of public over total health expenditure increased by 8 percent in Namibia, 13 percent in South Africa, 39 percent in Swaziland, and 50 percent in Lesotho (Figure 24). As of 2013, the proportion on health expenditure financed by the government ranged from about 50 percent in South Africa to 75 percent in Swaziland and 80 percent in Lesotho.

Fortunately, for the next few decades the demographic transition *per se* will not add to the financial burden of battling an epidemiological situation of growing complexity. Because the growth of the elderly population will be relatively slow, the total bill for public health spending is unlikely to rise significantly over the next decades if current spending levels per age group continue. Rather, it is projected to hold at between 3 and 4.5 percent of GDP in 2050 (Figure 19), except in Lesotho.<sup>59</sup> Even if spending profiles per age group were to converge to the median of OECD countries (a realistic assumption, in view of the need to address the emergence of NCDs), public health spending in 2050 would only slightly increase, to between 3.7 and 4.9 percent of GDP by 2050. These are modest levels, especially if benchmarked against the OECD, where average public health spending in 2013 was around 6.5 percent of GDP.

Lesotho, with extremely high levels of public health spending, is the exception: under current profiles, and even with its relatively young population, it is forecast to spend around 9 percent of GDP by 2050. It is the only country where, if spending profiles by age group were to converge to OECD levels, average spending would drop, to around 4 percent in 2050.

The low fiscal burden of the demographic transition gives only partial relief. Health systems in Southern Africa will have to adapt to the upcoming demographic and epidemiological changes by promoting the health of the population in three key areas: addressing malnutrition and obesity among children; eradicating HIV/AIDS and its related burden of disease; and adapting the health systems to the emergence of NCDs. This will help sustain a healthy and productive labor force for the countries, thus increasing the likelihood of harnessing a demographic dividend.

**FIGURE 24: WHILE PUBLIC SPENDING ON HEALTH HAS INCREASED, OUT-OF-POCKET EXPENDITURES REMAIN HIGH**



### BOX 11: TEENAGE PREGNANCY AS A PUBLIC HEALTH AND DEMOGRAPHIC CHALLENGE

Teenage pregnancy is an important public health issue: it is widespread, largely preventable, and fraught with negative consequences, both for the young women and for their children. Compared with infants of older mothers, those born to teenagers are more likely to have lower birth weights and die as infants. They are more likely to have hospital admissions in early childhood, less supportive home environments, poorer cognitive development, and, if female, a pregnancy themselves as teenagers.<sup>60</sup> Teenage mothers more often are socially isolated and have fewer education and employment opportunities (see page 59 on investment in ECD and teenage mothers). Teenage mothering is therefore an important channel for the inter-generational transmission of poverty.

In spite of the fast and sustained fall in overall fertility, teenage motherhood remains high in Southern Africa. In Lesotho, 40 percent of women aged 19 in 2014 had had their first child.<sup>61</sup> The percentage of adolescent pregnancies among total deliveries is as high as 20 percent in Namibia and 30 percent in Swaziland.<sup>62</sup> In Swaziland, the gross enrollment ratio drops from 98 percent among young females in primary school to 57 percent in secondary school. Some studies have estimated that up to 32 percent of school dropouts in Swaziland at secondary level could be due to teenage pregnancy.<sup>63</sup> A World Bank

study recently showed that HIV prevalence among girls who dropped out of school in Swaziland were up to three times higher than for girls who were still in school—exacerbating and entrenching an already vicious cycle.<sup>64</sup> In South Africa, around a quarter of women gave birth before age 20<sup>65</sup> and around a third reported to having been pregnant by that age.<sup>66</sup>

Thus early motherhood is a major causes of dropout in secondary school. In some cases, the law requires pregnant girls to leave school for a given period of time. In many cases, the girls never return.<sup>67</sup>

### ***Two Concurrent Extremes: Chronic Malnutrition and Overweight/Obesity***

Chronic malnutrition remains a serious concern in Southern Africa. Between a fifth and a third of children younger than five still suffer from it, and more than two fifths have anemia (Figure 25). Malnutrition is the biggest contributor to years of disability in infancy and early childhood, and in some places well into adulthood. Across the world, studies have established that deficiencies in early development harm an individual’s social and economic potential all through life. Research in India, Vietnam, Peru, and Ethiopia has shown that malnourished children at five years of age had substantially lower math and reading scores and three years later were 19 percent less likely to correctly read simple sentences, and 12.5 percent less likely to be able to write.<sup>68</sup> Later in life, chronic malnutrition affects labor market performance: individuals who suffered from it during their early years tend to earn 10 or even 20 percent less than their better-nourished peers.<sup>69</sup> Chronic malnutrition also bears elements of race and class. In South Africa, 6.8 percent of black boys aged 8-11 have moderate stunting, compared to only 2.2 percent of boys of mixed ancestry of those ages and 0.5 percent of white boys.<sup>70</sup>

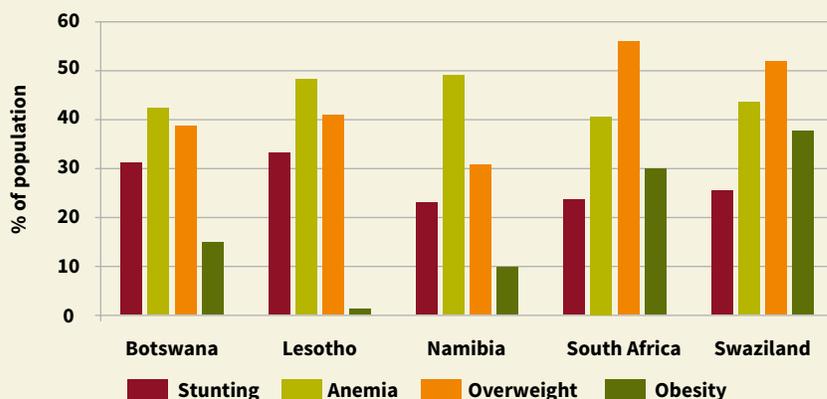
At the same time, rising incomes lead people to switch to unhealthy diets linked to soaring rates of overweight and obesity, which in turn increase the risk of developing chronic conditions such as diabetes, hypertension, and cardiovascular disease.<sup>71</sup> Between a third and half of the population of Southern Africa is already overweight (Figure 25); obesity has also become a serious challenge.

Southern Africa is thus experiencing what is commonly called the “double burden of malnutrition:” Malnutrition coexists with soaring rates of overweight and obesity. If unaddressed, this will exact a serious toll on national health systems and people’s well-being.

### ***The Social and Health Dimensions of the Fight against HIV/AIDS***

The HIV/AIDS pandemic, along with the global outbreaks of tuberculosis/HIV co-infection, had their epicenters in Eastern and Southern Africa. The latter has been the hardest hit, with five hyper-endemic epidemics and persistently high HIV infection rates.

**FIGURE 25: CHRONIC MALNUTRITION IS COEXISTING WITH RISING RATES OF OVERWEIGHT**



*Note:* Rates of stunting and anemia are for children younger than five. Most recent data for 2008-2014.  
*Source:* Health, Nutrition and Population Statistics, UNICEF, and Nnyepi et al. 2015.

The early estimates of the demographic impact of HIV/AIDS charted huge dips in life expectancy in Southern Africa in the 1990s and early 2000s. However, newer forecasts are more upbeat, based on two key cost-effective HIV interventions: life-long antiretroviral therapy (ART), which rapidly scaled up from around 2010 onwards, and prevention of mother-to-child transmission (PMTCT), which was rapidly rolled out starting in 2005 and now puts HIV-positive pregnant women on lifelong HIV treatment, for a lifelong positive impact on the child as well.

Huge benefits of ART are the prevention of transmission of HIV to babies during birth and the post-partum time, and the more than 90 percent reduction in the infectiousness of HIV-positive people receiving treatment. The total elimination of mother-to-child transmission has become almost a reality in Southern Africa (apart from Lesotho) and has slashed under-five mortality.

Nonetheless, the HIV burden remains alarming in Southern Africa. Eight million people are still living with the disease, which places tremendous pressure on their countries' health systems. Furthermore, the gender and class element of the epidemic cannot be ignored. The risk of becoming infected is disproportionately higher for girls and young women. HIV prevalence, which measures total levels of infection in a population, is two and a half times higher among young women aged 15 to 24 in Southern and Eastern Africa than among men of the same age.<sup>72</sup> In Swaziland, HIV incidence, the measure of risk of new infections, is over 4 percent among adolescent girls and young women, one of the highest for a population sub-group anywhere in the world. Many of these girls have been infected by men who are at least five years older, a result of common age-disparate relationships, often driven by transactional

sex.<sup>73</sup> When a girl or young woman enters into a stable relationship, she often has difficulty insisting on condom use by her partner, who may be having sexual contact with other women. As a result, HIV infection rates among married women are significantly higher than among single women. The highest increase in prevalence, in fact, occurs when young women start engaging in regular sexual relationships. Population-based survey data show an HIV prevalence of around 6 percent among adolescent girls aged 15 to 17 in Lesotho and Swaziland, but among women aged 23 to 24, the rate jumps to nearly 30 percent in Lesotho and over 40 percent in Swaziland.<sup>74</sup>

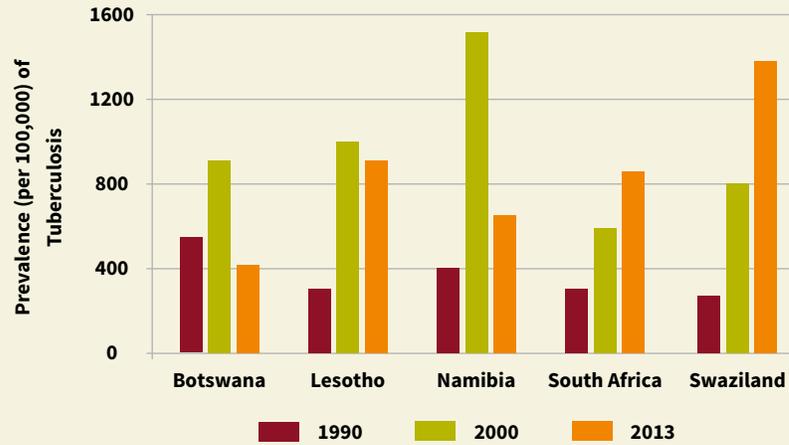
### **BOX 12: HIV/AIDS AND (LACK OF) INVESTMENT IN HUMAN CAPITAL**

An important channel through which the demographic transition can bring economic growth is human capital accumulation due to the changing age structure of the population.<sup>75</sup> Becker and Lewis theorized in 1973 the emergence of a “quantity-quality tradeoff,” or a change in parents’ preferences for fewer but better educated and healthier children. As fertility declines, part of a household’s resources is freed up and can be invested in more education and better health for children. Longer life expectancy also plays a role, as it increases return to education and health investments.<sup>76</sup> And improvements in health and education are self-reinforcing, as healthier children tend to possess greater cognitive skills<sup>77</sup> and a better-educated population is less likely to be exposed to health-related risks.

But high HIV prevalence can hinder human capital accumulation. The presence of an epidemic may generate socio-economic insecurity, which lowers incentives for long-term investment in human capital. In addition, expenditure for care of infected people may divert household resources away from investment in human capital for the youngsters.<sup>78</sup> More generally, high HIV prevalence has increased the number of orphans and changed the composition of households, sending more children to foster care. To a lesser extent, it has raised the number of so-called “skip-generation” households (elderly people with grandchildren, as the middle generation dies from AIDS) and child-headed households.<sup>79</sup> The realization of the demographic dividend will depend to a significant degree on the policy responses to the challenges of HIV/AIDS.

Along with the HIV epidemic in Southern Africa has come an epidemic of a complex HIV/tuberculosis (TB) co-infection and multi-drug resistant (MDR) TB. While in Botswana and Namibia TB prevalence has dropped from its peak in the early 2000s, in South Africa and Swaziland rates keep soaring (Figure 26). Overall, TB prevalence remains high in all of the region’s countries, ranging from 400 cases per 100,000

**FIGURE 26: ALONG WITH HIV HAS COME A COMPLEX TUBERCULOSIS EPIDEMIC**



Source: Lantos 2015, based on World Bank data.

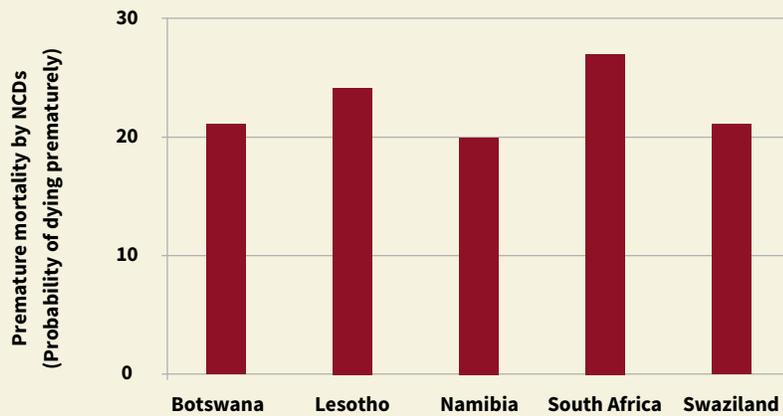
people in Botswana to almost 1,400 in Swaziland. MDR-TB has also spread throughout the five countries, making it harder to treat and control.

The emergence of TB and MDR-TB requires a coordinated fight both in the health care systems of the countries and the socio-emotional dimension of patients and their families. On the health front, cure rates need to increase to reduce transmission. TB detection must improve, which goes hand in hand with treatment. TB and HIV care needs to be better integrated, so that TB patients are tested for HIV and vice versa. Finally, cases of MDR-TB need to be identified and treated quickly, which requires that recurrent TB should be cultured for drug resistance.<sup>80</sup> On the socio-emotional dimension, HIV/AIDS and TB patients and their families need help in overcoming psycho-social barriers and stigmatization that often cause low adherence to prevention practices and treatment. Fortunately, tailored pilot programs are having impressive effects helping tuberculosis patients overcome the stigma of the illness and provide them with income-generating opportunities and psychological treatment.<sup>81</sup>

### ***The Emergence of Non-Communicable Diseases***

Cancer, diabetes, cardiovascular diseases, chronic respiratory diseases, and other NCDs are an increasing challenge for the health and well-being of Southern Africans. More than a fifth of the region's people aged between 30 and 70 die prematurely due to the four main NCDs (Figure 27). According to the World Health Organization, NCDs are already the main cause of death in some of these countries.

**FIGURE 27: RISING NCDs ARE LEADING TO PREMATURE DEATHS**



*Note:* Probability of dying from the 4 main NCDs (Cancer, Diabetes, Cardiovascular Diseases and Chronic Respiratory Diseases) between the ages of 30 and 70. *Source:* World Health Organization.

Cardiovascular diseases explain the bulk of NCD mortality, encapsulating a number of bad health outcomes: heart attack, hypertension, stroke, congestive heart failure, and heart disease. While part of the emergence of NCDs can be attributed to population aging,<sup>82</sup> another part—especially among the younger population—can be attributed to changing lifestyles brought on by economic growth, urbanization, and cultural shifts. Urbanization, richer diets, and lower physical activity are important factors behind soaring obesity rates, which in turn increase the risk of developing NCDs. Addressing NCDs therefore requires a multisectoral approach that goes beyond treatment.<sup>83</sup> Prevention is key, achieved by encouraging improvements in people’s diets, increases in physical activity, and other healthy behaviors.

From a public health perspective, the best service delivery model against NCDs is very different and more expensive than the one used to tackle CDs. With CDs, care is episodic, does not require long follow-up (exceptions are TB and HIV), and in most cases uses relatively affordable technology (mainly medicines). By contrast, NCDs require continuous “case management,” good coordination between different levels of care, and, if the illness is not prevented or promptly treated, expensive technology. Countries that are best at preventing and treating NCD have invested significantly in primary care and prevention and concentrated the expensive technology and services in fewer hospitals.

### **BOX 13: CHANGING FAMILY STRUCTURE AND LONG-TERM CARE**

As the number of older people in Southern Africa increases, particularly those who are 75 and older, public policy and service delivery must take into account their needs. Longer life expectancies and the emergence of NCDs mean that a larger number of elderly will require public assistance and will face long-term disabling conditions.

In the African context, the strength of tradition and family solidarity has traditionally protected older persons from social and economic insecurity. Nevertheless, today's higher social and geographic mobility, reflected in rapid urbanization, is leading to situations where middle-aged adults are unable to provide the necessary care to their parents.<sup>84</sup> The HIV/AIDS pandemic has heightened the disruption by changing family structures in both rural and urban areas. With the working-age population having suffered heavily under the epidemic, the traditional practice of depending on grown children during old age may be obsolete.

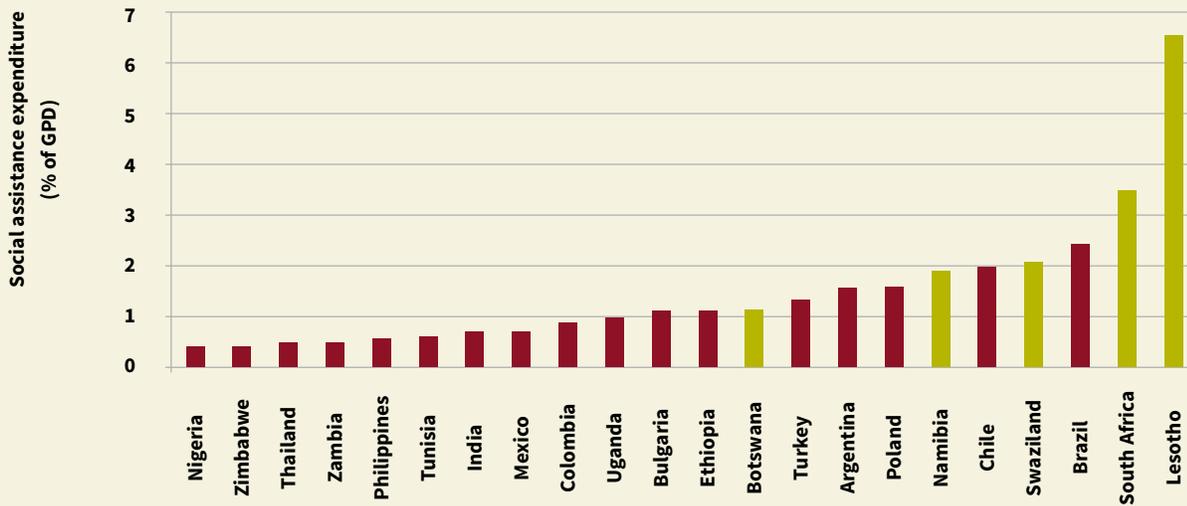
Southern Africa is a pioneer in the region in recognizing this demographic and social change, and laws are being drafted. In 2006, for instance, the government of South Africa approved the Act on Older Persons. Implementation, however, has been slow. Although geriatric care was singled out as needing urgent expansion, little progress has occurred.<sup>85</sup> In 2014 Lesotho approved the Policy for Older Persons, with an objective "to advocate for observance of the rights and respect of older persons and to establish structures and programs to promote their well-being."<sup>86</sup> However, as of 2015 the policy had wrought no significant changes.<sup>87</sup> As countries advance in the demographic transition, assuring effective implementation of policies for the elderly and integrating health and social protection interventions will become increasingly important.

### **Social Assistance: Towards an Integrated Life-Cycle Approach**

A life-cycle approach to social assistance recognizes the reality that poverty spreads across the life cycle and through generations, and that people's differing needs at different stages of life are inter-related. In order to respond to demographic change, an effective social protection response should take into account the integration and the transition between the different life stages so as to ensure cumulative benefits within each cohort and across generations. Policies will affect the same people at different stages of their lives, and people of different ages sharing the same household will interact and support each other.

The following section focuses on how social assistance programs and spending across the lifecycle can help lock in the benefits of the current demographic moment. Overall, social assistance in Southern Africa is generous by international standards, but it favors the protection of the elderly. It puts lesser emphasis on promoting the development of children, thus hampering their personal development and preparation

**FIGURE 28: SOCIAL ASSISTANCE EXPENDITURE IS GENEROUS BY INTERNATIONAL STANDARDS**



Source: World Bank. "The Atlas of Social Protection: Indicators of Resilience and Equity (ASPIRE)." ca. 2010.

for the labor market, and on supporting people of working age, in particular youth. This is particularly problematic given the much larger size of the young cohorts relative to the elderly. Improvements in social assistance should therefore aim at a more balanced approach between the different stages of the life cycle.

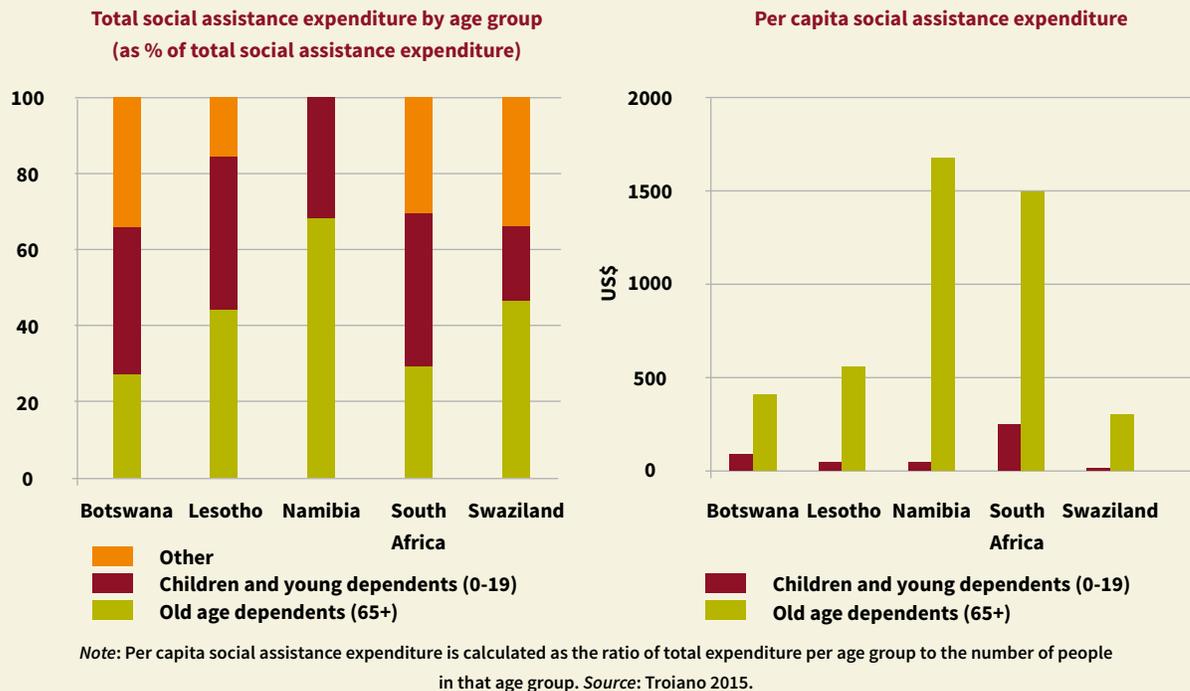
***Social Assistance: Generous, but More towards the Old than the Young***

Countries in Southern Africa generally have generous and comprehensive social assistance systems. Fiscal resources allocated to these programs in the sub-region are greater than in most emerging economies (Figure 28), consistent with Southern African governments’ explicit policy priorities of assisting poor and vulnerable people to achieve more equitable societies.

The most striking common trait of the five countries’ programs is the large per capita spending on the elderly compared to the young: resources per individual in the age group 65-plus are four times those available to individuals aged 0-19 in Botswana, and the ratio increases to six in South Africa, 12 in Lesotho, 30 in Swaziland, and 38 in Namibia (Figure 29, right panel).

All Southern African countries provide their old-age citizens with social pensions. The coverage levels vary, but all can be described as fairly inclusive.<sup>88</sup> There is higher variation in terms of levels of pension

**FIGURE 29: THE ELDERLY ARE THE LARGEST RECIPIENT OF SOCIAL ASSISTANCE**



benefits. In Botswana, the benefit is equal to 37 percent of the national food poverty line while in Lesotho it is equal to about 2.5 times that line.

With the exception of Lesotho, the generosity of the countries' noncontributory pension systems remains below OECD levels (Figure 18). At current generosity levels, spending on these pensions will remain relatively manageable for the next decades. Nevertheless, if they move toward OECD levels of generosity, the fiscal costs could escalate to 4 - 8 percent of GDP (Figure 19). These outlays would require significant increases in fiscal revenues, possibly at the expense of other social expenditures.

All countries also provide cash transfers for children, with costs varying between 0.2 percent of GDP in Botswana and 1.8 percent in Swaziland. Unlike the grants available to the elderly, cash transfers for children are always targeted to vulnerable groups, such as children in low-income households, orphans, and children living in foster care. These programs usually have lower coverage and generosity compared to the old-age pensions. In Lesotho, the child grant program covers approximately 30,000 children (3 percent of the population aged 0-18), while the old-age pension covers virtually all people over 70. The average benefit of the child grant program in Lesotho is roughly 34 percent of the old-age pension transfer.<sup>89</sup> In Namibia, cash transfers accruing to children, from maintenance grants to foster care grants,

reach 15 percent of the population under 18, while 92 percent of the elderly population receives the basic pension.<sup>90</sup>

It is worth noting, however, that in all Southern Africa countries cash support for children is accompanied by in-kind transfers, particularly school feeding and nutrition programs. These are universal in Botswana and Lesotho but targeted to the poor in the other countries. The value of in-kind benefits is not always easily quantifiable in monetary terms, but they may still help lift children out of poverty and provide them access to health care and education.

Moving along the life cycle, the working-age population in Southern Africa has access to some social assistance programs, but they tend to be limited in scope: they account for a maximum of 0.1 percent of GDP. Active labor market policies (ALMPs) also remain scant, imposing another limit on the “promotion” role of social spending. Botswana, Lesotho, and South Africa have public works and temporary employment programs in place, but targeting and efficacy varies across countries, and none of these programs seems to have a strong built-in component for skill development. When they exist at all, training and employment services are limited in coverage (examples are the Development Fund in Namibia and the Adult and Non-Formal Education Program in Swaziland) and not necessarily linked to social assistance’s target population.

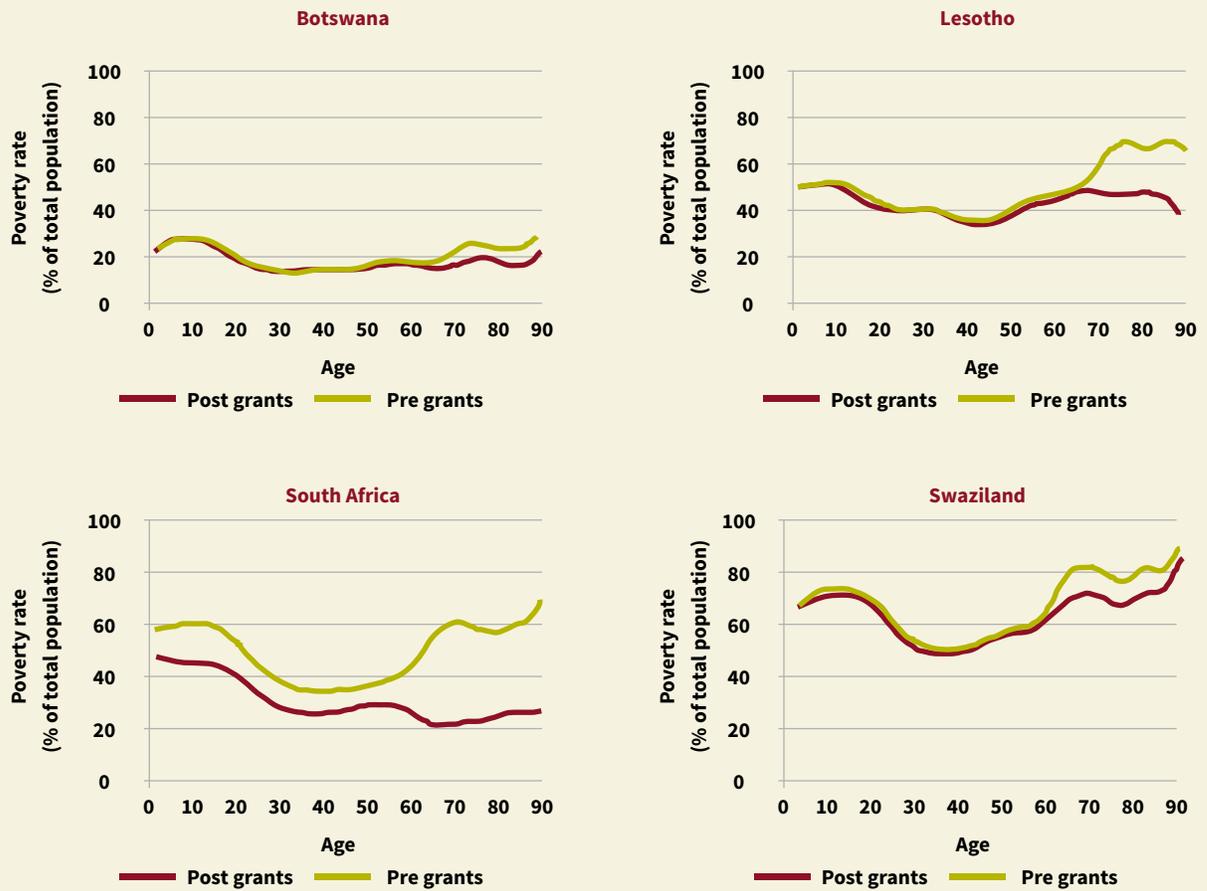
The high levels of youth unemployment have led some countries to introduce measures targeting youth and facilitating school-to-work transition. South Africa has recently introduced a Youth Wage Subsidy (also called an Employment Tax Incentive), while Botswana has put in place active policies that include training services, subsidized internships, and support to entrepreneurship among youth. Unfortunately, the formal nature of the jobs that these programs target or the entry requirements (secondary school diploma or prior accumulation of significant skills) make it difficult for many disadvantaged youth to take part.

The higher generosity and coverage of benefits for the elderly shows the strong emphasis of social assistance in a “protection” role for the elderly, as opposed to a “promotion” role for children and youth. A benefit incidence analysis of cash transfers along the age dimension highlights the magnitude of the imbalance. Figure 30 estimates poverty rates before and after cash transfers to households. Apart from in South Africa, the impact of the transfers on the non-elderly remains negligible.<sup>91</sup> Interestingly, an often claimed side benefit of social pensions is that they trickle down to younger household members thanks to transfers within households.<sup>92</sup> The estimates in Figure 30 seem to challenge that view, possibly because many households do not have an elderly member, and hence cannot benefit from the social pension.

Going forward, countries may want to consider directing greater resources to social services that target children and youth and to ALMPs, in view of current high youth unemployment and the large cohorts that will enter the labor market in the decades to come.

Giving the social protection system a life-cycle perspective would also allow programs to accompany the population through transition phases that are both major times of vulnerability and crucial for personal development: from school to work, from inactivity or unemployment to employment, from

**FIGURE 30: THE POVERTY IMPACT OF CASH TRANSFERS ON CHILDREN AND YOUTH REMAINS MODERATE**



Note: The estimates are based on national poverty lines. Data for Namibia is not available.

Source: Oosthuizen 2015.

the labor market to retirement. The current lack of integration between programs targeting different moments in the life-cycle may reflect a lack of proper identification of these transition phases, which are key to triggering individual development in the subsequent life stages.

### ***Adolescence and Youth as a Crucial Stage for Policy Action***

If today's children are tomorrow's labor force, today's youth are this evening's force. Despite their imminent value as a productive resource and, indeed, the very fiber of society, adolescence and youth often receives less attention than childhood and old age. If members of these age groups do not find productive employment, the changing demographics will bring not a dividend but a burden.

Adolescence, defined here as ages 12 to 18, is a critical period of development. Economic or health shocks occurring during this time of life can have long-lasting consequences. Teenagers in Southern Africa are at high peril of poverty, school dropout, and risky behaviors that too often lead to teenage pregnancy or HIV/AIDS. Desirable policy actions include coordinated interventions in health and education, but also social assistance. By sustaining household income, social assistance programs can increase adolescents' access to education and health care, as documented in Zambia, Malawi, and Namibia.<sup>93</sup> Cash transfers can help improve school attendance, and also reduce HIV-risk behaviors among girls.<sup>94</sup> In Zambia, the World Bank recently suggested a multi-sectoral strategy including social protection and promotion as the way to reduce early marriage and teenage pregnancy.

Youth is a time of many transitions—ideally from school, to work, to avoiding risky behaviors, to founding a family, and to exercising citizenship. These transitions, which are shaped by opportunities available to each individual and by social norms and aspirations developed during childhood and adolescence, have long-lasting consequences. For young women, the transition from school to work entails additional challenges, as women's opportunities are often limited by social norms concerning family responsibility and acceptable economic activities.

While all these transitions entail risks, the current high rates of unemployment give the transition to the labor market special relevance. The move from study to work is often slow and unstructured for vulnerable youths. The promotion pillar of the social policies will be particularly relevant to supporting individuals during this stage of the life-cycle. In particular it should equip them with skills the labor market wants and open the door to ALMPs such as on-the-job training, adult education, public works, temporary employment, and intermediation. Ultimately, however, the success of these programs will depend on the ability of the productive sector to create jobs.

# 6. CONCLUSIONS: SOCIAL POLICIES FOR A CHANGING POPULATION IN SOUTHERN AFRICA

Thanks to a rapid fall in fertility, over the next decades Southern Africa will open a demographic window of opportunity in which the proportion of working-age population will reach its peak. The increase in labor supply on the one hand and the freeing-up of resources by a falling share of dependents on the other could deliver a boost in economic growth: the *demographic dividend*.

Under the right set of policies, healthy and educated children can become large cohorts of productive adults. With access to jobs and social services, these adults can fulfill their earning potential, save, invest, and contribute to the country's fiscal revenues. And they can be more likely to raise healthy and educated children, leading to a virtuous cycle of social welfare.

But realizing the dividend is by no means assured. If the right policies are not in place, the high levels of unemployment and inactivity that are already troubling the sub-region's countries could escalate and bring on a vicious intergenerational cycle of poverty, unemployment, and vulnerability.

So it is crucial that Southern Africa get its policies right as the demographic transition draws near. Governments should exploit lower fiscal pressure to invest resources in improving human capital and helping more young people find jobs, while continuing to provide social services and assistance to the vulnerable—especially those among the younger generations.

While recognizing the importance of social sectors, the report is candid that the demographic dividend will only be achieved if labor markets and the general economic environment manage to provide good employment opportunities to new workers.

## **An Opening of the Fiscal Space for Social Sectors to Respond to Changing Needs**

Observed through the fiscal lenses, the ongoing demographic transition brings good news: for the next decades, a larger proportion of the population will be of working age, and will require neither early

education nor elderly care services. And, while health spending is on the rise due to changing lifestyles, the slow growth of the elderly population is not adding much to the current fiscal burden. The report argues for using this opening of fiscal space to invest in the next generations' ability to lead healthy and productive lives.

## **Start by Helping Youth Get Good Jobs**

The demographic transition will add pressure on Southern Africa's already fragile labor markets to create employment and good jobs for youth. The working-age population of the five countries is expected to grow massively over the next 30 years. Between now and 2050, that population will increase by 29 percent in Botswana, 36 percent in Lesotho, 53 percent in Namibia, and 43 percent in Swaziland. In South Africa, the figure will be 28 percent—almost 10 million people added to the current working-age population. But already, between a third and half of Southern Africa's young males would like to work but cannot find any. Many more, although not studying, are idle and out of the labor force. Employment prospects for young females are even dimmer.

If unaddressed, this employment challenge will soon turn into a full-fledged jobs crisis with long-lasting consequences. If youths do not find stable and well paid employment, they will not be able to save for old age, remaining dependent on state assistance all along their life cycles. Unemployed and vulnerable youth will also be more likely to pass their precarious conditions on to their children, generating a vicious intergenerational cycle of poverty and vulnerability. The youth unemployment challenge therefore has long-term ramifications, spanning from the social dimension (poverty and vulnerability), to the economic (low productivity workers), to the fiscal (strong dependence on state assistance along the life cycle), and to the intergenerational (perpetuation of the cycle of poverty).

Efficient social services can help reduce youth unemployment by helping develop skills that employers need and by facilitating the entry of youth into labor markets. Active labor market policies, such as job intermediation and retraining services, can facilitate school-to-work transitions and ensure better matches between what workers can offer and what employers are looking for. For youth with cognitive and non-cognitive gaps, dedicated training and job insertion programs can make an important difference. And for vulnerable youth, social policies should go beyond the labor market dimension to address the sources of vulnerability specific to them. For instance, policies should serve to protect young people from unwanted pregnancy and HIV/AIDS.

## **Increase Investment in Youth's Human Capital—Starting from the Early Ages**

Tackling high levels of youth unemployment will also require a major upgrade in the quality of education. Despite important improvements in coverage, students in all five of Southern Africa's countries score poorly in measures of quality, which hinders employment opportunities of graduates. A solid human capital base requires years, if not decades of investments. It starts with building strong and robust foundations for

learning through early childhood development (ECD) services. It continues with providing solid cognitive and socio-emotional skills during the basic education years. Later on, education curricula must provide the more specialized skills that are prized in the labor market. At the same time, it is important to lay down the institutional bases that will oversee the tertiary education sector and guarantee the quality of the services it offers. Tertiary enrollment is relatively low by international standards, but steadily growing. The time to act is now, because it will be much more difficult and costly to improve second-class institutions, than to get them right from the beginning.

Health and social assistance services should also adapt to changing needs. Keeping the population healthy is among the most basic of conditions of development. But over the next decades, Southern Africa will face multiple challenges on this front: Non-communicable diseases are becoming a major cause of years of life lost, while at the same time chronic malnutrition and HIV/AIDS continue to harm the lives of millions of people. If the growing complexity of the epidemiological profile is not addressed, the region's societies will lack healthy and productive workforces. And because the poor and vulnerable disproportionately suffer poor health, there will be a toll not only on productivity, but equity.

Social assistance systems should also re-orient some of their focus towards supporting development of children and youth, a key factor in reaping the benefits of the demographic transition. At present, social assistance systems in Southern Africa are heavily geared towards the elderly population. Yet, equally important should be promotion of the health, skills, and general employability of the younger generations. Cash transfers, if well designed, can boost use of crucial health services such as growth monitoring checkups for infants and at later ages can help reduce school drop-out rates, in particular among the poor and vulnerable. Active labor market policies, entrepreneurship and training programs can help vulnerable youth accessing better jobs. Yet, these services often remain limited in coverage. Social programs tend to operate in isolation from one another, which prevents tailoring assistance to the specific needs and vulnerabilities of each individual, and following people across the life cycle. Integrating social assistance programs into a well-articulated system could lead to significant efficiency gains.

## **Addressing Emerging Needs in a World of Trade-offs**

The need to adapt social policies to changing demographics will generate complex tradeoffs, none of which may deliver simple answers—and almost all of which will favor some population groups at the expense of others. The first group of tradeoffs is across social sectors. Addressing youth unemployment is a pressing priority. But where will resources come from to close coverage gaps and improve the quality of education? Ignoring the emergence of non-communicable diseases would lead to a major health crisis a few decades down the line. And without adequate social pensions, many vulnerable elderly people would fall into destitution. The second group of tradeoffs is across age groups. In education, how much should be invested in early childhood development versus improving the quality of the regular curriculum or

expanding continuous education for those who have already left school? And how much fiscal space is there to rebalance social assistance toward promoting youth's human capital and employment?

In spite of these tradeoffs, inaction is the worst response. Without stronger investments in the new generations, the countries of Southern Africa are bound to remain in a vicious cycle of poverty and vulnerability.

## **Social Policies Cannot Do the Job Alone**

Effective economic policies have played a central role in most, if not all of the world's poverty reduction success stories. A sound macroeconomic environment and policies favoring private-sector development and labor-intensive sectors are an essential part of the picture. So are labor market policies that strike a balance between the creation of new jobs and the protection of incumbent workers. Although the elements of economic policy fall beyond the purpose of this report, they are fundamental to success.

Yet social policies are fundamental too. They are essential to fostering generations of healthy, educated young workers who can bring skills and enthusiasm to the labor market and through their joint efforts lift an entire economy to a higher level of development. Social policies help assure that the new gains lift all segments of the population, and that the young and the old live in dignity. As the countries of Southern Africa enter the demographic transition, they will do well to seek an optimal pairing of these complementary keys to prosperity: economic and social policies. One cannot succeed without the other.

# NOTES

- 1 We define these as including education, health, and social assistance.
- 2 The analysis presented in this paper focuses on non-contributory social programs, leaving out contributory schemes and social insurance. This choice rests on the fact that contributory programs are very rare in Southern Africa, and nearly exclusively benefit the wealthiest.
- 3 Lee 2003.
- 4 Bloom and Williamson 1998.
- 5 Bloom, Canning, and Sevilla 2003.
- 6 Bloom and Williamson 1998, Lee et al. 2000, and Sanchez-Romero 2012.
- 7 Mason 2005.
- 8 Lee and Mason 2011.
- 9 Replacement level fertility is the total fertility rate—the average number of children born per woman—at which a population exactly replaces itself from one generation to the next, without migration. This rate is roughly 2.1 children per woman for most countries, although it may modestly vary with mortality rates.
- 10 Prados de la Escosura 2013.
- 11 Caldwell and Caldwell 1993.
- 12 Caldwell and Caldwell 1993, Chimere-Dan 1993.
- 13 Mills et al. 2010.
- 14 Chawla, Betcherman, and Banerji 2007 and Bussolo, Koettl, and Sinnott 2015.
- 15 For purposes of their analysis, Ahmed and Cruz treat these two small countries as a single economy.
- 16 Lewis 2011.
- 17 Nguyen & Sulla 2015.
- 18 Ahluwalia 1976.
- 19 Merrick 2001 and Eastwood and Lipton 2001.
- 20 Becker and Lewis 1975.
- 21 Chimere-Dan 1993 and Swartz 2002.
- 22 Gule 1996 and Phillips 2002.
- 23 Bloom, Canning, and Sevilla 2003.
- 24 Burger and Woolard 2005.
- 25 Bhorat et al. 2014, Kariuki et al. 2014, and Brixiová and Kangoye 2013.

- 26 Hosegood 2009.
- 27 Epstein 2004.
- 28 Jefferis et al. 2008.
- 29 Antonopoulos and Toay 2009 and Akintola 2008.
- 30 Arndt and Lewis 2001.
- 31 Canning, Raja, and Yazbeck 2014.
- 32 UNAIDS 2013.
- 33 Their forecasts are devised by looking at how individual characteristics (age, sex, education) are associated with labor force participation and unemployment. The study's authors then estimate the evolution of labor force participation and employment by looking at how the composition of these characteristics in the population changes over time.
- 34 OECD 2015.
- 35 Brixiová and Kangoye 2013.
- 36 Lesotho Bureau of Statistics 2008.
- 37 Yu 2012.
- 38 Brixiová and Kangoye 2013 and Marope 2010.
- 39 Moleke 2005 and Pauw et al. 2008.
- 40 Levinsohn 2014.
- 41 World Bank 2012a and Filmer et al. 2014.
- 42 World Bank 2012b.
- 43 Southern African Customs Union 2014.
- 44 University of KwaZulu Natal 2010.
- 45 University of KwaZulu Natal 2010.
- 46 Lee & Mason 2011.
- 47 Van der Berg and Knoesen 2015.
- 48 Heckman and Masterov 2007.
- 49 Heckman 2007.
- 50 Samuels et al. 2015 and Goldman et al. 2015.
- 51 The PISA is the most widely used test to evaluate the reading comprehension and mathematics skills of 15-year-old students. Unfortunately, only South Africa and Botswana have taken part in international educational evaluations (TIMSS and PIRLS) beyond Southern and Eastern Africa. However, all five countries participated in SAQMEQ III, the regional school testing program carried out in Grade 6. Applying a methodology first developed by Hanushek and Woessmann (2008, 2011), van der Berg and Knoesen recalibrate the countries' SAQMEQ scores into the PISA metrics, as shown in Figure 21.
- 52 Gustafsson 2014.
- 53 OECD and UNESCO 2003.

- 54 van der Berg and Knoesen 2015.
- 55 González-Velosa et al. 2015.
- 56 van der Berg and Knoesen 2015.
- 57 Marope 2010 and Fasih and Hoftijzer 2014
- 58 Collinson et al. 2014.
- 59 The age profile of public health spending per capita is estimated for the year 2010. As such, it does not fully capture increases in per capita public health spending in some countries in the region in recent years. Although this may affect the levels of the forecasts of aggregate public health spending, it does not alter the general conclusions on the impact of the change in the age structure on future health spending.
- 60 Botting et al. 1998 and Wellings et al. 1999.
- 61 Lesotho Ministry of Health and the DHS Program 2015.
- 62 Mngadi 2007.
- 63 DFID 2011.
- 64 Gorgens et al. 2016.
- 65 Branson, Ardington, and Leibbrandt 2013.
- 66 Willan 2013.
- 67 Eloundou-Enyegue 2013.
- 68 Save the Children 2013.
- 69 World Bank 2006 and Save the Children 2013.
- 70 Nnyepi et al. 2015.
- 71 Shrimpton and Rokx 2012.
- 72 UNICEF 2016.
- 73 Government of Swaziland 2015.
- 73 UNICEF 2016.
- 74 Government of Swaziland 2015.
- 75 Lutz 2014.
- 76 Bloom et al. 2003.
- 77 Jamison 1996.
- 78 Gaylin and Kates 1997.
- 79 Hosegood 2009 and Wittenberg and Collinson 2010.
- 80 Karim et al. 2009.
- 81 Rocha et al. 2011 and Karlin et al. 2012.
- 82 Mayosi et al. 2009.
- 83 Dobbs et al. 2014.
- 84 Apt 2001.

85 EIU 2012.

86 Lesotho Ministry of Social Development 2014.

87 Dhemba and Dhemba 2015.

88 In addition, Namibia has a large non-contributory pension program for veterans which by itself amounts to 1.3 percent of GDP.

89 Mistiaen et al. 2012.

90 ILO 2014.

91 The estimates divide cash transfers received by all household members.

92 Duflo 2003.

93 Omilola and Kaniki 2014.

94 Pettifor 2013.

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