

# Creating and Capitalizing on the Demographic Dividend for Africa



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Two short term methods for Harnessing the Demographic Dividend: Investing in economic sectors needing low-skilled workers in order to generate jobs for the large population of working-age. Creating employment opportunities for females.

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## EXECUTIVE SUMMARY

The demographic dividend (DD) represents a golden opportunity for many developing countries to experience accelerated economic growth as a result of population changes. Africa in particular is ideally positioned to (1) create the opportunity for a DD and (2) develop an environment conducive to reaping the economic benefits of the DD. The time for sustained action to take advantage of this potential is now.

The DD refers to the accelerated economic growth that countries can experience as a result of population changes. With a reduction in fertility rates, a country will encounter a few decades during which higher than average shares of the population are of working-age. In other words, the ratio of (young and old) dependents to working-age adults declines. This has the potential to raise output and savings per capita, thereby leading to improvements in human capital and economic growth of dynamic sectors. However, the right policies are required to translate higher population shares of working age adults into economically productive adults, to raise productivity, and to raise savings per working age adult.

**Harnessing the DD is time-sensitive and capitalizing on the benefits is not automatic.**

1. *Investments in family health* are needed to initiate, accelerate, and sustain the necessary population changes: a decline in fertility is required to yield fewer dependents relative to income-generators, a ratio essential to the DD. The decline in fertility demands a commitment to voluntary family planning programs, information, and services. Other investment areas to create a DD-conducive population structure include child health, education access, gender equity, including female education, and marriage delay.

2. *Investments in human capital* are needed to create an environment favorable to the uptake of a large working-age cohort into dynamic sectors that will translate into economic growth. The environment includes the quality of the workforce (supply) as well as the quality of the economic opportunities (demand). Specifically, policies must target trade portfolio diversity, infrastructure quality, job creation, labor flexibility, education quality and skills adaptability.

**While Africa has the demographic and economic potential to harness the DD, the aforementioned investments must be prioritized before the opportunity window closes.** Many countries in Africa find themselves at a junction where a decision must be made to focus on promoting an immediate decline in fertility and to initiate health, economic, education, fiscal, and labor policy reform to create the necessary economic environment for growth in preparation for the changed population structure. In general, Africa needs to accelerate ongoing fertility decline, stimulate job creation, promote trade diversification, attract capital, expand and educate its workforce, and empower its female population.

In addition, Africa faces the immediate pressure from a large and increasing working-age cohort for whom the necessary preparatory investments have not been made.

Three themes are explored to provide clarity on the different components at play to attain the DD, and emphasize the nature and urgency of the investments needed to reap the economic benefits of the DD in Africa. First, the theoretical concepts behind the DD are explained, including the causes and consequences of creating and capitalizing on the DD. Secondly, Africa's potential for harnessing the DD and the shortcomings the continent must address are delineated. Finally, policy recommendations are presented to address the imminent challenges from Africa's young population in the short term, create an opportunity for the DD and generate the benefits of the DD in the long term.



A young storekeeper in Tanzania listens to an HIV/AIDS radio program as part of the STRADCOM (Strategic Radio Communication for Development) project.

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## THE DEMOGRAPHIC DIVIDEND EXPLAINED

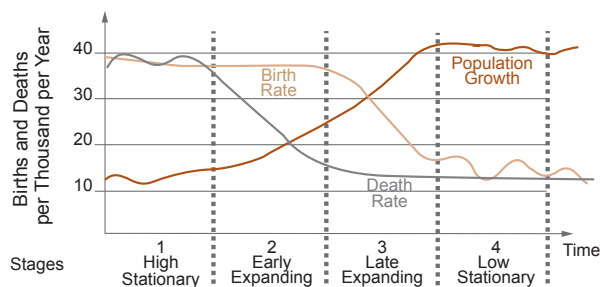
First coined by Bloom, Canning, and Sevilla, the demographic dividend (DD) refers to the potential economic growth, which can be experienced as a result of changes in the age structure of a population following a decline in fertility.<sup>5</sup> This decline is a part of a population dynamic experienced by all countries known as the demographic transition.

The decline in fertility creates a temporary period of time during which higher than average shares of the population are of working-age. In other words, the ratio of (young and old) dependents to working-age adults is low. This has the potential to raise output and savings per capita, thereby leading to improvements in human capital and economic growth of dynamic sectors if the right policies are enacted.

### THE DEMOGRAPHIC TRANSITION: THE PLATFORM

The demographic transition has four phases corresponding to different combinations of stages of mortality and fertility decline (see Figure 1). More precisely the lag between mortality decline (which often occurs first) and subsequent fertility decline leads to changes in the population's age structure (the distribution of the population across age groups). While most countries in Africa are at the nascent stage of the demographic transition, nearly all other countries in the world have completed or are in the process of completing it.

FIGURE 1:  
THE FOUR PHASES OF THE  
DEMOGRAPHIC TRANSITION



Source: <http://geographyfieldwork.com/DemographicTransition.htm>

### BOX ONE: DEFINITION - DEMOGRAPHIC DIVIDEND

“The demographic dividend is the accelerated economic growth that may result from a decline in a country's mortality and fertility and the subsequent change in the age structure of the population. With fewer births each year, a country's young dependent population grows smaller in relation to the working-age population. With fewer people to support, a country has a window of opportunity for rapid economic growth if the right social and economic policies developed and investments made.”

Source: 16



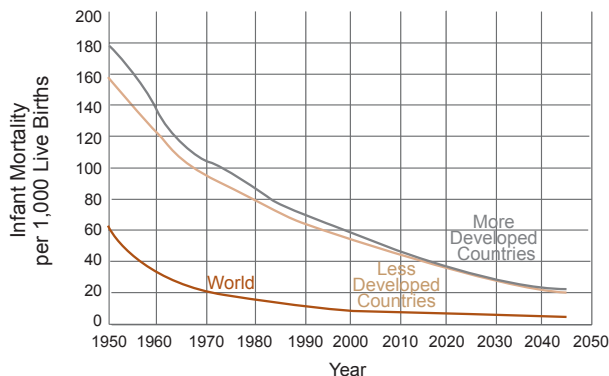
Proud parents smile upon their newborn daughter Atikta Haoua Riane at her official naming ceremony or “indeeri” in Lagdo of the Northern Province of Cameroon, one week after her birth. © 2004 Rachel Hoy, Courtesy of Photoshare

FEWER  
BIRTHS

## The decline in mortality

At the initial stage of the demographic transition, mortality and fertility rates are both high, with minimal population growth. In phase two, there are widespread decreases in mortality, which are driven by improved nutrition and the control and eradication of infectious communicable diseases – major causes of death for children under five in the developing world. As a result, country populations become significantly younger in age as infant mortality drops and more children survive. (see Figure 2)<sup>5</sup> Adult mortality also declines but at different rates across countries. Today many Sub-Saharan countries are experiencing major mortality declines.<sup>7</sup> Nevertheless, in Africa this drop in mortality was delayed for a long time, in part as a result of the high death toll from ravaging wars and rampant infectious diseases, especially HIV/AIDS, afflicting the continent. As seen in the next section, the retarded mortality decline has had a lasting effect on fertility decline, expected in the third phase of the transition.

FIGURE 2:  
TRENDS IN INFANT MORTALITY RATES IN THE  
WORLD



Source: 5



### MAIN MESSAGE: FERTILITY DECLINE IS ESSENTIAL FOR THE DEMOGRAPHIC DIVIDEND

- All countries undergo the demographic transition – but do so at different speeds
- Fertility decline is one step of the demographic transition and initially creates a “youth bulge”
- Fertility decline is essential for the attainment of the demographic dividend

A vendor with his son at Koloba village, Minya province, Egypt.  
© 2008 Catherine Harbour, Courtesy of Photoshare

## The effect of lower mortality on fertility

The third phase of the demographic transition is characterized by a steady fertility decline, as a result of the decline in infant mortality. Typically, families will perceive fewer children are needed to reach desired family sizes.<sup>5</sup> With better rates of child survival, parents are more likely to invest in their children's education, nutrition and healthcare. The high costs of these investments also make having fewer children a sensible economic decision.<sup>5</sup> Economists refer to this as the quantity-quality tradeoff. For educated females, the opportunity cost of childbearing and childrearing in comparison to gainful work and earnings also lowers family size desires.<sup>9</sup>

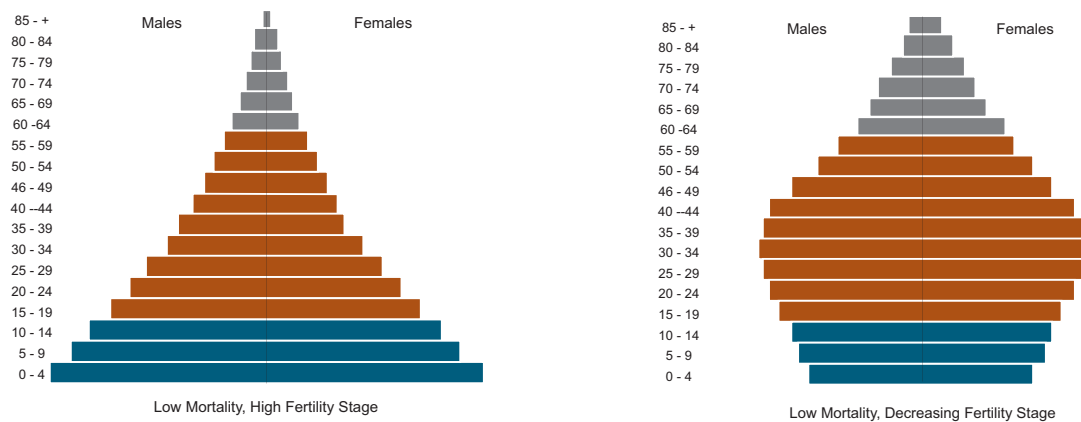
However, desired fertility and its realization will depend on a variety of factors and incentives that determine rational economic behaviors which may or may not be compatible with fertility decline.<sup>16</sup> For that reason, a country's fertility levels can remain high or start to decline. This decline tapers off in the fourth phase of the transition when fertility reaches a rate as low as mortality's and population growth is again minimal.

### The lag-time between mortality and fertility declines

The lag between the mortality and fertility declines leads to an increase in the number of young children in the population.<sup>5</sup> That growth is illustrated in the age pyramid on the left panel of Figure 3 in which new births are added each year to the base. The number of births grows quickly as cohorts advance into childbearing ages. In many African countries, persons under 15 years of age account for two fifths of the total population.

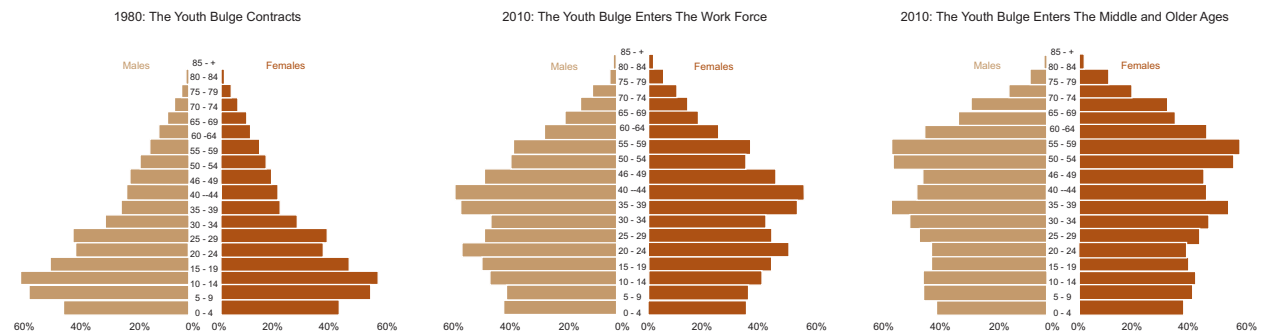
If fertility declines, the base narrows and a “youth bulge” is created, as seen in the age pyramid on the right panel of Figure 3. Over time, this bulge will progress through the ages, as seen with China’s population pyramid (see Figure 4). This evolution of the age structure has economic implications, as discussed in the next section.

FIGURE 3:  
THEORETICAL POPULATION PYRAMIDS



Source: <http://www.population-growth-migration.info/essays/DemographicDividend.html>

FIGURE 4:  
CHINA’S POPULATION PYRAMID BETWEEN 1980 AND 2025



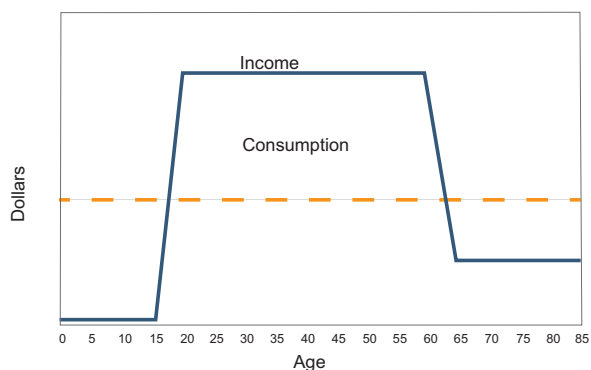
Source: <http://www.mbaskool.com/business-articles/finance/1331-chinas-economy-post-2025.html>

## MAIN PRINCIPLES OF THE DEMOGRAPHIC DIVIDEND

### The importance of the age structure of a population

Changes in the age structure of a population have important economic consequences because labor supply and savings tends to be higher among working-age adults than in dependent-aged groups. As the economic life cycle in Figure 5 illustrates, working-age adults in a population produce the majority of personal income through labor and savings, while the young and the elderly consume income through utilization of social services. Inter-age group transfers facilitate this dynamic: the economically active population finances the consumption of dependents, especially through intra-household transfers.<sup>5</sup> As a result, changes in age groups' size can shape a country's economic prospects and provide the opportunity for the demographic dividend.

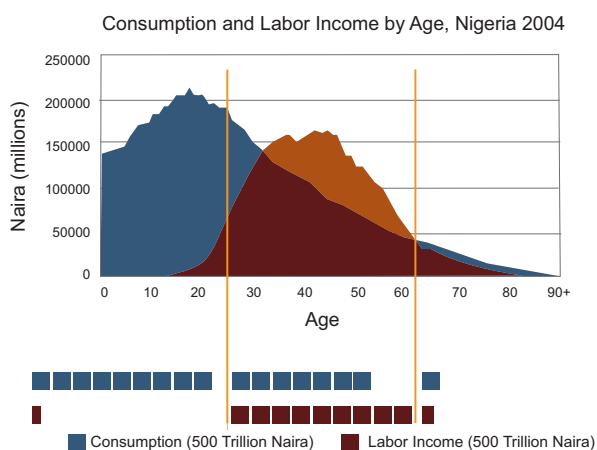
FIGURE 5:  
CONSUMPTION AND INCOME GENERATION THROUGH THE AGES



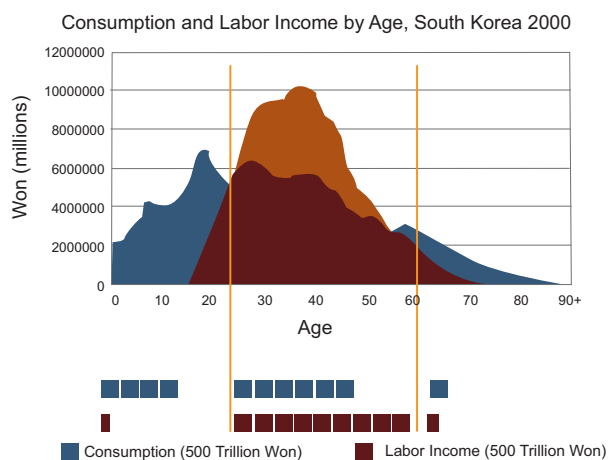
Source: 5

For example, Figure 6 illustrates the difference between Nigeria, which has yet to harness the dividend, and South Korea, which has already reaped the benefits of the dividend. The blue line represents aggregate consumption and the red line represents aggregate labor income (in millions, local currencies). The overlap between the two curves indicates consumption, which can be directly financed by labor income without inter-age-group transfers. While the economic lifecycle is the same for both countries (i.e. greater aggregate consumption in the young and old ages and greater labor income generation between ages 25-60), South Korea has experienced near-equal aggregate consumption and aggregate labor income over all age groups that is not present in Nigeria.

FIGURE 6:  
AGGREGATE CONSUMPTION AND LABOR INCOME (IN MILLIONS, LOCAL CURRENCIES) BY AGE FOR SOUTH KOREA AND NIGERIA.



Source: National transfer Accounts estimates (ntaccounts.org)



Source: National transfer Accounts estimates (ntaccounts.org)

## The dependency ratio

More specifically, it is the changes in the ratio of dependents to those in the active working population (ages 15-64) that create the potential for a demographic dividend.

The (overall) dependency ratio is the sum of two dependency ratios, the youth and old-age dependency ratios:

1. Children under age 15 are youth dependents: they are net consumers on the basis of both their consumption (food, clothes, housing) and the human capital investments they engender (education, health). The **youth dependency ratio (YDR)** is defined as the number of dependents under age 15 for every person of working-age 15 to 64.<sup>16</sup> The lower the YDR, the more income and savings generated by the working-age population can be invested or used because less is consumed by dependents.

2. Adults over age 64 are also considered dependents because they are not economically active and instead rely on savings, social security benefits, or direct assistance from family members for their consumption needs. The **old-age dependency ratio (ODR)** e.g. is defined as the number of dependents over age 64 for every person in the working-age population.<sup>16</sup> With improvements in adult health, longer life expectancies mean more continuous work and earnings, generating household savings for further investments. A high ODR therefore does not automatically imply greater government expenditures for elderly support.

## The demographic dividends

Changes in population structure and accompanying changes in the dependency ratio have economic consequences. The entry of a youth bulge in the workforce can increase output and savings per capita depending on the size of the other age groups as well as behavioral effects.<sup>16</sup> These benefits are the **first demographic dividend**.

The dividend does not end with the absorption of a youthful workforce. As this working-age population matures, the prospects of retirement can provide greater motivation to save for financial security. Depending on the number of other dependents, the additional savings can either be consumed or used to prolong economic growth.<sup>16</sup> This later stage of economic growth has been termed the **second demographic dividend**.

The economic consequences of changes in population structure are evident in Figure 7, which compares the population pyramids of Ghana and South Korea in 1955 and 2011. While both countries had similar YDRs and socio-economic profiles in 1955, fertility rates and dependency ratios declined in South Korea, which enabled it to harness its dividend. On the other hand, in 2011, Ghana's population pyramid is a near replica of South Korea's in 1955. Its dependency ratio remains elevated and Ghana has yet to experience the economic benefits of the demographic dividend.



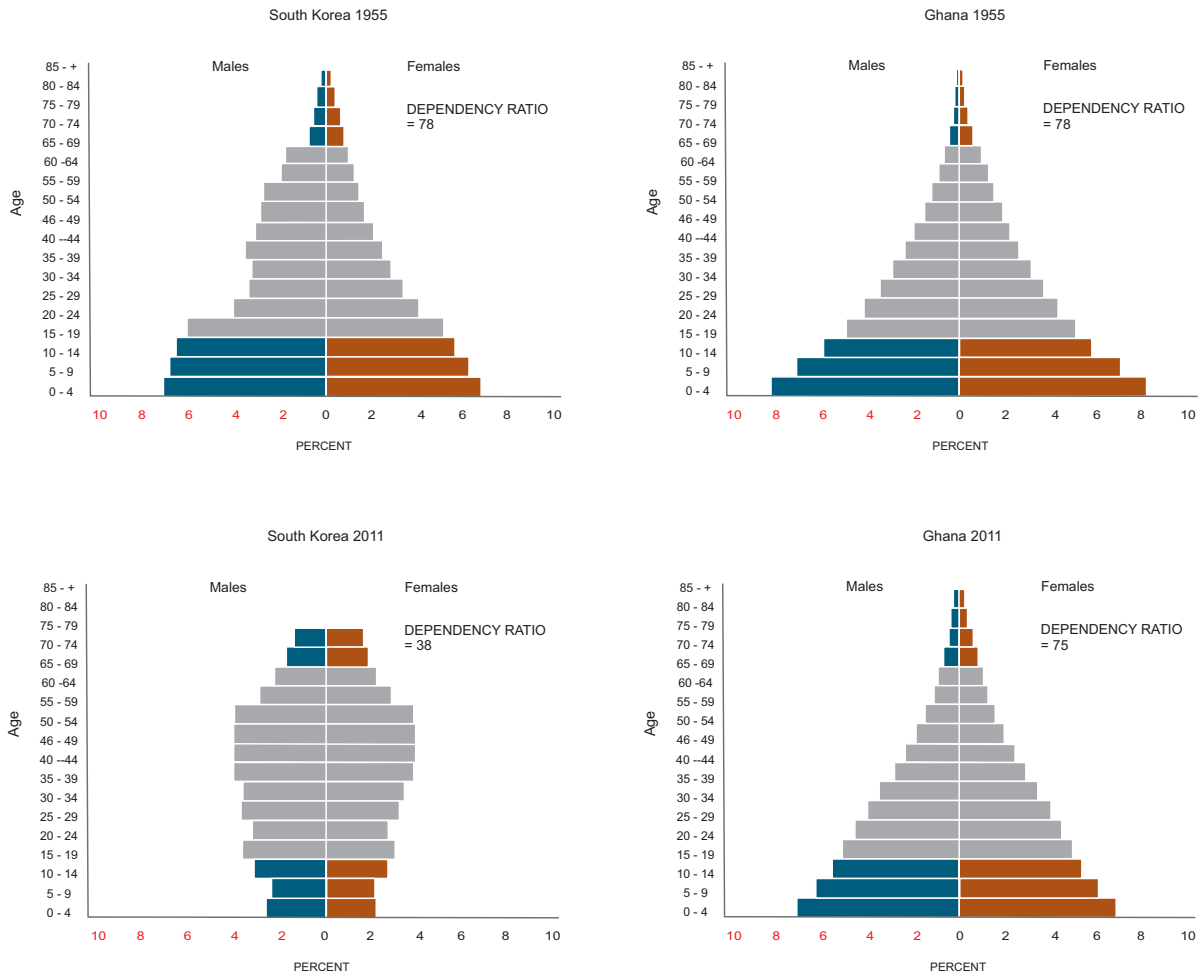
### MAIN MESSAGE:

## CHANGES TO THE POPULATION STRUCTURE ARE NECESSARY FOR THE DD

- Changes in population structure and dependency ratio have economic impacts because the economic needs change over the lifecycle
- The demographic dividend is economic growth that is the consequence of such population changes and has two parts:
  - 1 The first DD: investments of increased income from a working “youth bulge” with fewer dependents behind it
  - 2 The second DD: prolonged investments in the economy of increased savings from cohorts moving into the older years

Motorcycle taxi drivers wait for fares in Uganda.  
© 2006 Anthony Kambi Masha, Courtesy of Photoshare

FIGURE 7:  
POPULATION PYRAMIDS OF SOUTH KOREA AND GHANA IN 1955 AND 2011



Source: <http://www.population-growth-migration.info/essays/DemographicDividend.html>

## TWO STEPS FOR THE DEMOGRAPHIC DIVIDEND

Harnessing the demographic dividend requires two successive steps: 1) **creating** the window of opportunity through fertility reduction and 2) **capitalizing** on the dividend economically.<sup>9</sup>

### Creating the window of opportunity

#### 1. A proportionally larger working-age population

The window of opportunity for a demographic dividend opens when fertility declines, the youth bulge forms, and the YDR declines. The working-age population becomes proportionally larger. The magnitude of fertility decline is important. With a small decline in fertility, population growth remains high, but where the number of children continues to increase, the YDR will not decline and savings will not accrue for investments important for the demographic dividend.<sup>12</sup>

#### 2. An increased female working-age population

The workforce also expands with the incorporation of young female workers. As families have fewer children; the schooling of girls tends to improve, and if employment opportunities are equally accessible, young females can enter the labor force at the same pace as young males. If female workers have lessened child bearing and child rearing responsibilities, they can remain economically active continuously.<sup>14</sup>

### Capitalizing on the window of opportunity

Beyond the window of opportunity, experiencing economic growth from population changes (i.e. capitalizing on the dividend) depends on the policy environment of the country and the quality of human resources.<sup>5</sup> In general, the economic landscape must be prepared to successfully incorporate the large entry-level working-age population. This, in turn, depends on economic, labor, and fiscal policies. Additionally, on the supply side, the working-age population must be endowed with an education level and skillset that adequately responds to demand from expanding and diversifying economic opportunities.



#### MAIN MESSAGE:

### A DD OPPORTUNITY MUST BE CREATED AND CAN BE FOLLOWED BY REAPING DD BENEFITS

- The potential for the DD is created when fertility decline leads to a population bulge that advances to working-age.
- Reaping the economic benefits of the DD opportunity requires a specific set of conditions to successfully integrate the bulge in the workforce:
  - 1 Quality human capital
  - 2 Growth oriented economic landscape

Students utilize the services provided at a knowledge center. Equipped with computers and internet access the center is an information hub where information is shared widely.  
© 2011 Photo Courtesy of the Bill & Melinda Gates Foundation

## WHAT ARE THE POTENTIAL ECONOMIC GAINS OF THE DEMOGRAPHIC DIVIDEND?

The economic gains of the demographic dividend can be assessed at the **microeconomic** level with households or individuals and at the **macroeconomic** level with countries. Both originate with the same economic spur.

### Economic gains at the micro level

An increase in the working-age population, a youth bulge, implies larger economic output and labor income per household, assuming that each person entering the working-age population is productively employed. Combined with lower support costs for dependents, households can see an increase in disposable income.<sup>4</sup> Over time, the increase in working-age population and lower YDR indicate that a given rate of growth of output per worker will translate into a faster rate of growth of output per person.<sup>8</sup>

Increased income per household affects both human capital spending and savings. With fewer children per household and increased disposable income, each household has the capacity to invest additional income on each child (their education, nutrition and healthcare).<sup>4</sup> Over time, increased income per household can trigger a rise in savings, especially when family heads are ages 40 to 65. Investments in grown children can be replaced with

savings elicited by the prospects of retirement and the reduced ability to rely on fewer offspring for old-age support. Savings also increase as a result of better adult health and longevity.<sup>5</sup>

### Economic gains at the macro level

At the country-level, the increase in labor supply, if successfully absorbed into the workforce, will signify an increase in production per capita for the country.<sup>5</sup> Increased household savings have ramifications nationally. Private household savings are often invested, thereby providing an accumulation of capital at the national level, which can be used to finance economic growth. An increase in savings creates a financial environment favorable for external investments, i.e., foreign direct investment (FDI). Therefore, increased savings directly fuels economic growth, as well as acts as a stimulant for external financing.<sup>5</sup>

Finally, just as households can invest more resources per child, at the national level, a lower dependency ratio and increased worker productivity allow governments to use the savings to invest in human capital quality or redirect their expenditures to other sectors of the economy.<sup>13</sup> As seen in Figure 8, it is estimated that the dividends have contributed in the growth of GDP to varying degrees in different regions of the world.

FIGURE 8:  
CONTRIBUTION OF THE DEMOGRAPHIC DIVIDEND TO GROWTH IN GDP PER EFFECTIVE CONSUMER FOR REGIONS OF THE WORLD

Region	Demographic Dividends: contribution to growth in GDP/N <sup>1</sup>			Actual growth in GDP/N <sup>1</sup>
	First	Second	Total	
Industrial economies	0.34	0.69	1.03	2.25
East and Southeast Asia	0.59	1.31	1.9	4.32
South Asia	0.1	0.69	0.79	1.88
Latin America	0.62	1.08	1.7	0.94
Sub-Saharan Africa	-0.09	0.17	0.08	0.06
Middle East and North Africa	0.51	0.7	1.21	1.1
Transition economies <sup>2</sup>	0.24	0.57	0.81	0.61
Pacific Islands	0.58	1.15	1.73	0.93

Source: Andrew Mason, 2005, "Demographic Transition and Demographic Dividends in Developed and Developing Countries," United Nations Expert Group Meeting on Social and Economic Implications of Changing Population Age Structures (Mexico City)

<sup>1</sup>Actual growth in GDP per effective consumer (GDP/N), 1970–2000, in percent a year. The effective number of consumers is the number of consumers weighted for age variation in consumption needs.

<sup>2</sup>Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, FYR Macedonia, Moldova, Mongolia, Poland, Romania, Russian Federation, Serbia and Montenegro, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.





#### MAIN MESSAGE:

### THE DD YIELDS ACCELERATED ECONOMIC GROWTH

- Harnessing the DD promises microeconomic and macroeconomic growth:
  - 1 Increased labor income per household translates into greater investments in the quality of each child or increased savings
  - 2 Increased national savings translates into greater investments in vibrant economic sectors and human capital and attracts foreign investments

StA help support line set up by (EVA) Education as a Vaccine Against Aids in Nigeria. Through “My QUestion My Answer, young people can ask questions related to sexual health or relationships. © 2012 Photo Courtesy of the Bill & Melinda Gates Foundation

## POLICIES TO CREATE AND REALIZE THE DEMOGRAPHIC DIVIDEND: THE NEED FOR APPROPRIATE HEALTH, EDUCATION, AND LABOR POLICIES

The sector policies mentioned below are summarized in Table 1 (see page 15) in the context of the stages of the demographic transition.

### Health policies to CREATE the DD

Health policies and program interventions have been effective enablers of the declines in fertility and the YDR. With regard to mortality, most African countries have already experienced improved life expectancies. However, subsequent declines in fertility have been slow in Africa, in part as a result of a series of prolonged and debilitating wars and virulent infectious disease epidemics, especially HIV/AIDS. The high death toll from these factors has deterred a drop in fertility to achieve desired family sizes.

Policies and interventions that allow couples to achieve their fertility preferences are the most sound and defensible on a human rights basis. Currently, the extant demand for contraception among reproductive-age couples—where the wife has expressed a desire to postpone or limit childbearing—is substantial in many low-income countries. There are many appropriate and effective medical and social interventions to respond to those needs. One that will readily be accepted is improved access to contraceptives and other family planning information and services.<sup>9</sup> Another should be on increasing awareness of the benefits to women, mothers and children of a healthy timing and spacing of pregnancies by providing and improving reproductive health and maternal health outreach and education, including education about family planning.<sup>16</sup>

The relationship between contraceptive use and fertility has been widely studied, and evidence shows that the latter declines by an average of one to two children per woman following a rise of 16 percentage points in the contraceptive use rate. One study has shown that approximately half of the decline in fertility in developing countries between the 1960s and 1980s can be attributed to family planning program efforts.<sup>6</sup>

## Education policies to CREATE the DD

Education policies also play a role in creating the dividend opportunity. Fertility decline is closely associated with rising education levels among men and women.<sup>5</sup> Education overall increases the average age at marriage and lowers family size preferences. Young educated persons tend to delay marriage to pursue further schooling or job skills training or work and accumulate earnings before marrying and starting families. Parenting at a very young age exacts opportunity costs by limiting young adults' participation in the workforce and constraining men's and women's earnings. Thus, policies and programs to promote and incentivize extended schooling by building more secondary schools, providing better quality instruction, raising enrolment and attainment rates among the growing youth population help open the demographic dividend's window of opportunity.

## Education policies to CAPITALIZE on the DD

Reaping economic growth from the change in population age structure requires specific education policies. These policies aim to promote the supply of a large and highly educated labor force, which can be easily integrated into economic sectors, particularly manufacturing, in which there is a significant demand for entry-level workers and growth potential.<sup>11</sup>

In general, schooling policies need to create higher quality and larger quantity of education opportunities for both males and females. As the youth bulge reaches school-entry age, increased access to education is needed simply because of the increased size of the cohort. Policies should also provide incentives to make extended schooling attractive.<sup>14</sup>

Educational expansion policies should be implemented in conjunction with policies to improve the quality of education primarily through increased availability of secondary and tertiary education institutions.<sup>19</sup> Skills specific to a country's strongest growing economic sectors, particularly those that will spur industrialization, need to be identified and training for the acquisition of these skills should be the focus of educational and employment programs.



### MAIN MESSAGE: THE DD REQUIRES INVESTMENTS IN HEALTH, FAMILY PLANNING, EDUCATION AND LABOR

- Creating the DD window of opportunity requires:
  - 1 Investing in voluntary family planning to facilitate fertility declines
  - 2 Investing in female education and prolonged educational attainment
- Harnessing the economic benefits of the DD requires:
  - 1 Investing in higher quality education and larger quantity of education opportunities to match economic opportunities
  - 2 Investing in the creation of new jobs in growing economic sectors and the development of an adaptive labor market
  - 3 Investing in fiscal frameworks to fuel capital accumulation for growth

Nurse Dorah Nyanja's brightly painted Clinic stands in stark contrast to its surroundings—rusted tin shacks, piles of burning trash, and streams of raw sewage.

© 2011 Photo Courtesy of the Bill & Melinda Gates Foundation

## Labor policies to CAPITALIZE on the DD

Education policies should be combined with labor policies that align the stock of human capital with growth-oriented demand. Emphasis should be placed on the creation of new jobs in expanding economic sectors that become available in a manner synchronized to the production of skilled labor. These jobs need to be economically productive and absorptive of a newly skilled, if youthful, labor force.<sup>11</sup>

Furthermore, regulations should create a flexible job market in order to facilitate the incorporation of this large labor force into growing sectors of the economy, particularly manufacturing industries.<sup>5</sup> At the same time, regulatory oversight is required to ensure occupational safety.

Equally important, to capitalize on the growing number of females seeking participation in the workforce, employment policies should promote gender-neutral hiring practices.<sup>5</sup>

## Fiscal policies to CAPITALIZE on the DD

Finally, experiencing the economic spur of the demographic dividend depends on the country's economic environment and potential for growth. Different types of fiscal policies have been found to favor increased capital accumulation needed to fuel growth. In general, free trade economies have seen higher rates of return on investment--and thus are more prone to reap the dividend--because of market flexibility and structural capacity for expansion.<sup>5</sup> Some experts point to Latin America's less open economies as a reason for the smaller size of their demographic dividend in comparison to East Asia.<sup>5</sup>

More specifically, economic policies that encourage investment on the part of foreign investors and savings by households will generate the capital needed for growth. These policies can take the form of specific fiscal or other economic incentives, but investments usually require secure and stable financial markets, a condition itself partially dependent on political stability, good governance, and low corruption.<sup>19</sup> This economic climate can be promoted by policies that, in the long term, evidence steady and capable fiscal management at the national level.

## A TIME-SENSITIVE PHENOMENON

The demographic dividend is not automatic. It depends on both the creation of and capitalization on opportunities for a set of specific policies and environments, which make the demographic dividend a time-sensitive phenomenon.

### The pace of fertility decline

The pace of fertility decline is of essential importance in determining whether the window of opportunity for the demographic dividend even opens. Because the period during which fertility declines delineates a period of population growth, the rate at which fertility falls, as well as the end-point level it reaches, determines the shape of the population pyramid.<sup>13</sup> An elevated and unchanging high fertility level will prevent the creation of a favorable youth bulge. In that case, the opportunity for the demographic dividend will not materialize because of the absence of a reduced YDR.<sup>12</sup> Furthermore, the absorption of an ever-expanding number of youth into the economy will raise additional issues for national development.<sup>1</sup> Several developing countries appear to be stuck in this stage where fertility has not declined rapidly enough to create a bulge.

While, in these countries, the pace of fertility decline may eventually pick up and a youth bulge may eventually appear with time, the resources needed to actualize the demographic dividend, and subsequently the time needed to increase GDP per capita, will be even greater.<sup>1</sup> Most low-income countries, with large impoverished populations, are not in a position where they can afford to wait. Delayed action to create the demographic dividend opportunity also means vanishing prospects of any dividend benefits.

Reproductive health and education policies to meet extant demand by households for smaller families are therefore needed to initiate and sustain the fertility decline.



#### MAIN MESSAGE:

### **THE DD IS A TIME SENSITIVE OPPORTUNITY THAT REQUIRES IMMEDIATE PREPARATORY ACTION**

- Fertility must decline enough to create a youth population bulge and a favorable YDR.
- The fertility decline must be sustained to create an opportunity for the DD.
- Investments in education, labor and favorable economic policies must be made in preparation of incorporating the youth bulge into the workforce

A group of curious children during the Contraceptive Day parade in Grand Bassa County, Liberia.  
© 2012 Emmanuel Dipo Otolorin, Courtesy of Photoshare

### **The favorable youth dependency ratio is transient**

Both the favorable dependency ratio (low) and the bulge's position moving up the working-age span are transient by nature. The period of time for economic growth corresponds to the time it takes for the youth bulge to enter and exit working-ages. The youth bulge will create an "echo" when it reaches reproductive age in the form of a second youth bulge. However, these echoes will become progressively smaller with time. The most significant economic growth will emerge from the initial youth bulge. There are approximately thirty years following the initial decline in fertility before the youth bulge enters the workforce. This time frame is, however, highly dependent on the pace of fertility decline.

As a result, conducive labor and economic environments must be in place when the youth bulge reaches working-age. It is obvious that education policies need to be implemented before the demographic dividend can be reaped as these are required to train the large cohorts of youth reaching school age. However, the same can be said of labor, economic and fiscal policies because these tend to require time before their impacts are felt. Following the decline in fertility, countries therefore must actively plan for a thirty-year lag time during which policies preparing for and supportive of the entry of the youth bulge into the workforce are implemented. Such prospective planning is essential for realizing the demographic dividend.

### **Extending the demographic dividend**

The period of economic growth from the demographic dividend can be extended beyond the incorporation of the youth bulge into the workforce. As the youth bulge ages, the need to invest additional income in children wanes, and retirement becomes a more pressing concern. The potential for households to start saving in preparation for their entry into the non-working-ages is high and can be realized if the appropriate fiscal policies to incentivize such behavior are in place.<sup>5</sup>

As previously mentioned, savings accumulated through the demographic dividend can stimulate further economic growth by providing capital for additional investments, such as in private annuities. This later growth has been referred to as a second demographic dividend. Like the first demographic dividend, its window of opportunity is short and usually spans the time between when the youth bulge reaches age 40 until age 59.<sup>5</sup>

TABLE 1  
POLICY PRIORITIES TO CREATE AND CAPITALIZE ON THE DEMOGRAPHIC DIVIDEND

	Phase 1	Phase 2	Phase 3	Phase 4	
<b>Demographic Transition</b>					
<b>Fertility</b>	High	High	Onset of and in decline	Declining to low	
<b>Child mortality</b>	High	Rapid decline	Declining	Low	
<b>Adult mortality</b>	High	No change	Declining	Rising	
<b>% of the population under age 15</b>	~45%	~40%	~35%	~25%	
<b>Sector Policy Priorities</b>	<b>Economic</b>	<ul style="list-style-type: none"> <li>- Support subsistence economy, small farm production</li> </ul>	<ul style="list-style-type: none"> <li>- Promote free trade</li> <li>- Stabilize financial markets to attract investors</li> <li>- Fight corruption</li> <li>- Invest in infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- Promote free trade</li> <li>- Promote household savings</li> <li>- Diversify trade by good and destination</li> <li>- Invest in infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- Focus on high-value, tech driven economic growth</li> <li>- Promote savings</li> </ul>
	<b>Labor</b>	<ul style="list-style-type: none"> <li>- Support agricultural employment</li> <li>- Promote creation of jobs in urban centers</li> </ul>	<ul style="list-style-type: none"> <li>- Create productive jobs</li> <li>- Promote job flexibility</li> <li>- Promote gender-equal hiring practices</li> </ul>	<ul style="list-style-type: none"> <li>- Create productive jobs (more rapidly)</li> <li>- Favor the creation of jobs in high value sectors</li> <li>- Support development of indigenous entrepreneurs</li> </ul>	<ul style="list-style-type: none"> <li>- Lengthen working-age period</li> <li>- Invest in programs to employ older populations</li> </ul>
	<b>Health</b>	<ul style="list-style-type: none"> <li>- Invest in child health</li> <li>- Invest in family planning to reduce fertility</li> </ul>	<ul style="list-style-type: none"> <li>- Expand/improve reproductive health and family planning outreach to reduce fertility</li> <li>- Meet contraceptive demand</li> <li>- Promote later marriage</li> <li>- Invest in child health</li> </ul>	<ul style="list-style-type: none"> <li>- Invest savings from fewer dependents in MCH</li> <li>- Meet contraceptive demand</li> </ul>	<ul style="list-style-type: none"> <li>- Sustain health of the workforce</li> <li>- Sustain contraceptive and MCH progresses</li> </ul>
	<b>Education</b>	<ul style="list-style-type: none"> <li>- Invest in education</li> </ul>	<ul style="list-style-type: none"> <li>- Promote expansion of school enrolment &amp; attainment</li> <li>- Target female education, including adult female education</li> <li>- Promote vocational training</li> </ul>	<ul style="list-style-type: none"> <li>- Improve quality of education and ensure match between skills taught and skills in demand</li> <li>- Invest savings from fewer dependents in higher education</li> <li>- Focus on high-value, tech driven economic growth</li> <li>- Promote savings</li> </ul>	<ul style="list-style-type: none"> <li>- Invest in adult education and job-retraining</li> <li>- Focus education towards skills needed for technology sector</li> </ul>
<b>Type of DD</b>	None	None	DD1	DD2	



Photo courtesy of © Anita Lillquist

## THE DEMOGRAPHIC DIVIDEND IN AFRICA

While the demographic dividend is theoretically applicable to all countries, the extent to which it has been realized differs across regions. East Asia and its “economic miracle” countries are often cited as the success story for the demographic dividend, their strong economic growth followed changes in population age structures due to robust fertility declines. The dividend for Latin America was more muted than East Asia’s because its economic growth was smaller.<sup>5</sup> As Africa edges along the demographic transition, several studies have explored whether the demographic dividend is applicable to the continent in theory and practice.<sup>3</sup> The following section examines the potential for Africa to realize a demographic dividend.

### AFRICA’S DEMOGRAPHIC POTENTIAL

The demographic situations of African countries vary. Countries can be grouped into three different categories according to an analysis undertaken by the Berlin Institute of fertility change between 1950 and 2010 in 103 current and former developing countries.<sup>14</sup> In general, while the average total fertility rate (TFR) for the African continent remains high at close to five children per woman, the level has begun to decline. The working-age population is also continuing to grow throughout Africa as a result of high fertility in past decades.

Table 2 further describes the three groups of countries, their present fertility levels, and potential for harnessing the demographic dividend.

#### Group 1 – 1 country with low fertility

While South Africa’s fertility decline occurred slowly, its window of opportunity for the demographic dividend is currently open as the youth bulge enters into the working-age population and the dependency ratio decreases.<sup>14</sup>

#### Group 2 – 13 countries with decreasing fertility

The fertility decline in these 13 countries began in the late 1980s, but has slowed since 2000. The opportunity for the demographic dividend will open when the youth bulge enters into the working-age population around 2030.<sup>14</sup>

#### Group 3 – 27 countries with elevated fertility

Fertility in these 27 countries has remained virtually unchanged in past decades, with perhaps small declines after the 1990s. The TFRs in some countries have even increased between 1950 and 1980. The opportunity to realize a demographic dividend depends on the prospects of any fertility decline.<sup>14</sup>



#### MAIN MESSAGE:



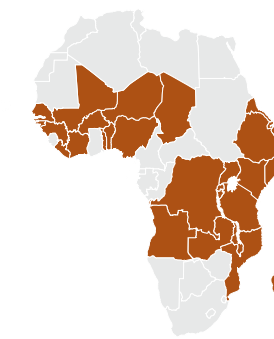
### AN AFRICAN FERTILITY DECLINE IS NECESSARY TO HARNESS THE DD

- Fertility remains very high and populations very young in the majority of African countries.
- Fertility decline must be emphasized to lower the dependency ratio and reap the DD in Africa
- Africa is also challenged by an increasingly large young population entering working-age

A shop attendant advertises condoms at a medicine shop near the site for HIV/AIDS Prevention Through Education Program in Ghana.

© 2008 Photo Courtesy of the Bill & Melinda Gates Foundation

TABLE 2:  
AFRICA'S DEMOGRAPHIC POTENTIAL FOR THE DEMOGRAPHIC DIVIDEND

		Group 1 – Low fertility	Group 2 – Declining fertility	Group 3 – Elevated fertility
<b>Countries</b>		 <b>1 Country</b>	 <b>13 Countries</b>	 <b>27 Countries</b>
<b>Fertility</b>	<b>TFR <sup>2</sup></b>	2.6	4.1	5.5
	<b>Date decline began</b>	1970s	late 1980s	1990s (small decline)
<b>Demographic Dividend</b>	<b>% of the population &lt;15 <sup>3</sup></b>	30.1%	38.6%	43.9%
	<b>Total   YDR   ODR</b>	53.0   46.0   7.0	73.4   67.2   6.2	88.3   82.9   5.3
	<b>Expected date of DD onset</b>	Current	2030s	Unknown
<b>Countries</b>		South Africa	Botswana, Cameroon, Central African Republic, Gabon, Ghana, Lesotho, Mauritania, Namibia, Republic of the Congo, Sierra Leone, Sudan, Swaziland and Zimbabwe	Angola, Benin, Burkina Faso, Burundi, Chad, Democratic Republic of the Congo, Ethiopia, Eritrea, Gambia, Guinea-Bissau, Guinea, Ivory Coast, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nigeria, Niger, Rwanda, Senegal, Somalia, Tanzania, Togo, Uganda, and Zambia
<p><sup>2</sup> TFR is unweighted average for countries included in each group and based on UN World Population Prospects, 2010 Revision  <sup>3</sup> % of the population &lt;15 is averaged for countries included in each group and based on UN World Population Prospects, 2010 Revision  <sup>4</sup> The three dependency ratios are averages for countries included in each group and based on UN World Population Prospects, 2010 Revision</p>				



## AFRICA'S ECONOMIC POTENTIAL

As noted earlier, population change needs to be accompanied by a growth-conducive economic environment to reap the demographic dividend. For the past decade, Africa has experienced strong economic growth and many attributes highlight its potential as a pole for global growth, as described by the UNECA's Economic Report on Africa 2012.

### A decade of consistent economic growth

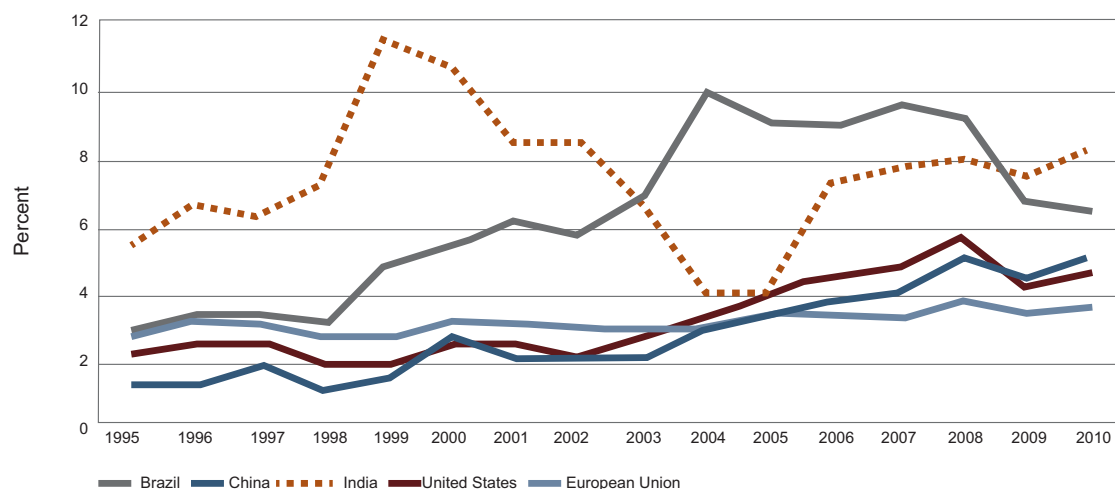
Since the second half of the 1990s, Africa has known consistent economic growth, with 40% of African economies growing at 5% or more annually between 2000 and 2008.<sup>19</sup> This growth occurs across many different sectors: resources, finance, retail trade, agriculture, transport, and telecommunications. The improved economic climate is reflected in the increase of foreign investments including a rise in FDI from \$9 to \$52.4 billion between 2000 and 2009 and an increase in portfolio investments to \$22 billion in 2010.<sup>19</sup> Between 2002 and 2008, Africa was the second fastest growing continent economically and in 2010, ten of the fifteen fastest growing economies in the world were African.<sup>19</sup>

Despite slowed growth following the global economic and financial crises in 2008, Africa quickly recovered to its pre-crisis position and again experienced accelerating economic growth trends in 2011.<sup>19</sup> The quick turnaround is compelling evidence that Africa's impressive economic growth in the past decade resulted from deep-seated improvements in economic and managerial decisions. Africa's growth is no longer a temporary development.

In 2011, the region as a whole experienced 4.5% growth, a 2.2% increase in per capita GDP, and a rise by 4.7% in real income per capita.<sup>19</sup> Several factors drove growth.

1. First, there was an increase in demand for commodities from emerging markets in Asia as well as higher prices of raw materials and agricultural products. Higher returns from exports allowed African resource exporters to build up foreign exchange reserves. In Mozambique, Zambia, and Tanzania increased global demand for minerals and rising mining output led growth; Ethiopia had a higher agricultural output; Central African countries experienced increased timber exports; Ghana and Angola increased their commercial oil exploration.<sup>19</sup>
2. Second, several countries continued to diversify their exports by destination and composition. Increased investment in processing and value addition allowed some countries to capture new markets for high-valued products in East Asia and Latin America. China and India now consume 12.5% and 4% of Africa's exports (see Figure 9).<sup>19</sup> Manufacturing represents approximately 10% of GDP in 12 African countries and higher-level services are rapidly growing including telecommunications services, banking, and tourism.<sup>19</sup>
3. Third, growth has been driven by an increase in domestic demand as a result of greater spending on infrastructure projects which improved productive capacity in agriculture and extractive industries as well as from an expanding domestic consumer market spurred by rising incomes and urbanization.

FIGURE 9:  
AFRICA'S SHARE OF SELECTED COUNTRIES' IMPORT MARKETS BETWEEN 1995 AND 2010 (%)



Source: 19

4. Fourth, improved economic management and business climate has led to increased FDI flows (see Figure 10). In 2011, FDI inflows reached \$52.4 billion and while they principally targeted extractive industries, there is indication of diversification by source and destination.<sup>19</sup>

Monetary policy has remained supportive of growth, curbing inflationary pressures, but also keeping interest rates low. Fiscal policy has sought to stimulate growth by increasing spending on infrastructure and social protection services including price subsidies.<sup>19</sup>

### Africa, a potential pole for global growth

The surge in Africa's economic growth has led African leaders to push for additional measures to secure the continent's position as a pole for global growth. Africa's significant progress since the beginning of the 21st century provides convincing evidence that "harnessing both the productive potential and untapped consumer demand of the continent" will propel global growth.



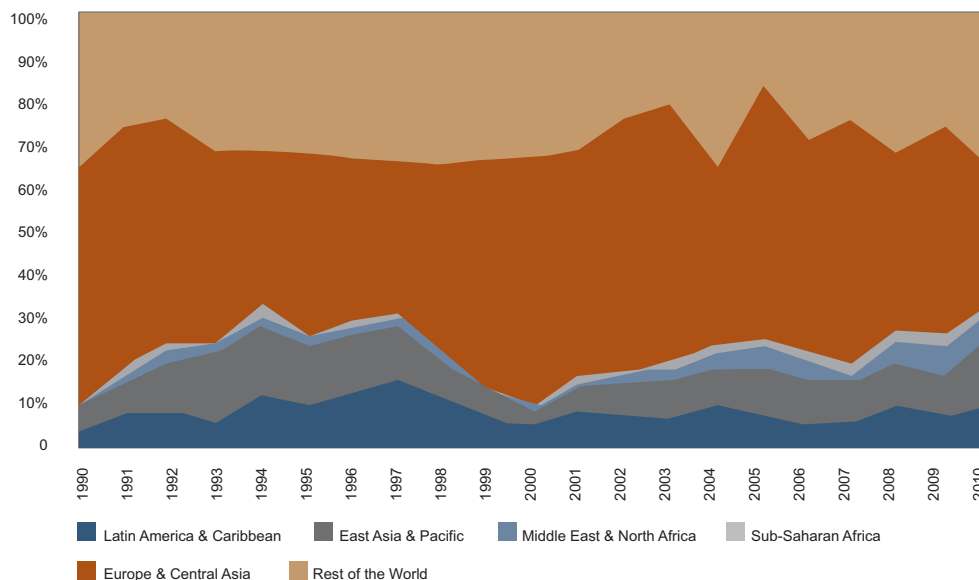
#### MAIN MESSAGE:

### AFRICA HAS BEEN EXPERIENCING SUSTAINED ECONOMIC GROWTH

- Despite the recent crises, Africa has known consistent economic growth in various sectors
- Africa's economic success has been due in part to: increase commodities demand from emerging markets and domestically, trade diversification, and increased foreign investments.
- Africa is on the path to becoming a pole for global growth

Josephine Mashina prepares to make egg omelets for breakfast and lunch at her stall in Zando market, the largest market in the heart of Kinshasa, Democratic Republic of the Congo.  
© 2012 Felix Masi, Courtesy of Photoshare

FIGURE 10:  
FDI INFLOWS BY REGION BETWEEN 1990 AND 2010



Source: 19

## SHORTCOMINGS: IMPROVEMENTS NEEDED TO EXPERIENCE THE DEMOGRAPHIC DIVIDEND

The African countries are in a demographic and economic position such that harnessing the demographic dividend is possible. However several actions need to be taken to open the window of opportunity and guarantee the economic benefits of the dividend.

### Africa's fertility transition may be too slow

While specifics vary by country, Africa faces two demographic trends that challenge its continued position as a global growth pole and before it can reap the demographic dividend: 1) the pace of its fertility decline has not paralleled those of Asia or Latin America to realize the age structure changes necessary for the dividend and 2) the continent is experiencing substantial population growth, including a burgeoning youth population that is approaching working-age and in need of being integrated into the economy.

A contraction in the future size of youth cohorts is essential to reach the lower dependency ratios required for the demographic dividend. To further spur economic growth, a youth bulge needs to be formed by a succession of cohorts—each with fewer births than one before it. This profile can only materialize following a significant decline in fertility. Without it the youth population will continue to expand rapidly. Over 40% of Africa's population is under the age of 15, more than twice the percentage in East Asia.<sup>18</sup> Between 2011 and 2100, the population of the 32 least developed countries will triple or more.<sup>18</sup> The fastest growth will occur in Burkina Faso, Malawi, Mali, Niger, Somalia, Uganda, Tanzania, and Zambia where the population is expected to increase by 500% or more by 2100.<sup>18</sup> As the large cohorts of young people in these countries reach working and reproductive age, they are followed by even larger younger cohorts. Therefore, for a majority of African countries, the dependency ratio is unlikely to decline even though the working-age population will increase. That demographic profile is not consistent with the one needed to realize a demographic dividend.

Integrating large young cohorts into the workforce as they reach working-age poses further challenges. Without an increase in available employment opportunities to match the size and skills of the large supply of young workers, an unemployed or under-employed youth population can become a source of social unrest and present a drag on those economies.<sup>1</sup> The high levels of fertility in Africa are largely explained by low gender status for women and low rates of contraceptive use. Only one in five (22%) married women ages 15-49 report using contraceptives.<sup>10</sup> This is the lowest regional level globally. On average contraceptive prevalence has increased by approximately 0.5 percentage points per year over the last 20 years.<sup>5</sup> While some of Africa's high fertility can be traced to cultural norms or rural demand, it is also a result of barriers to contraceptive access (see Figure 11).

## BOX TWO: POLICIES FOR FERTILITY REDUCTION

Policies targeting fertility reduction should focus on:

1. Supply: promoting family planning programs to improve outreach and access to services. In a seminal study, the Navrongo Community Health and Family Planning Program recorded a decrease of TFR by one birth over three years (corresponding to a 15% fertility decline relative to fertility levels in comparable communities) as a result of nurse outreach and reliance on the “zurugelu” approach for community mobilization in a high-fertility, traditional, rural African setting.
2. Demand: promoting a reduction in the demand for children. A variety of factors have been indirectly associated with desired family sizes including women's health and education, female participation in the workforce, and age at marriage.

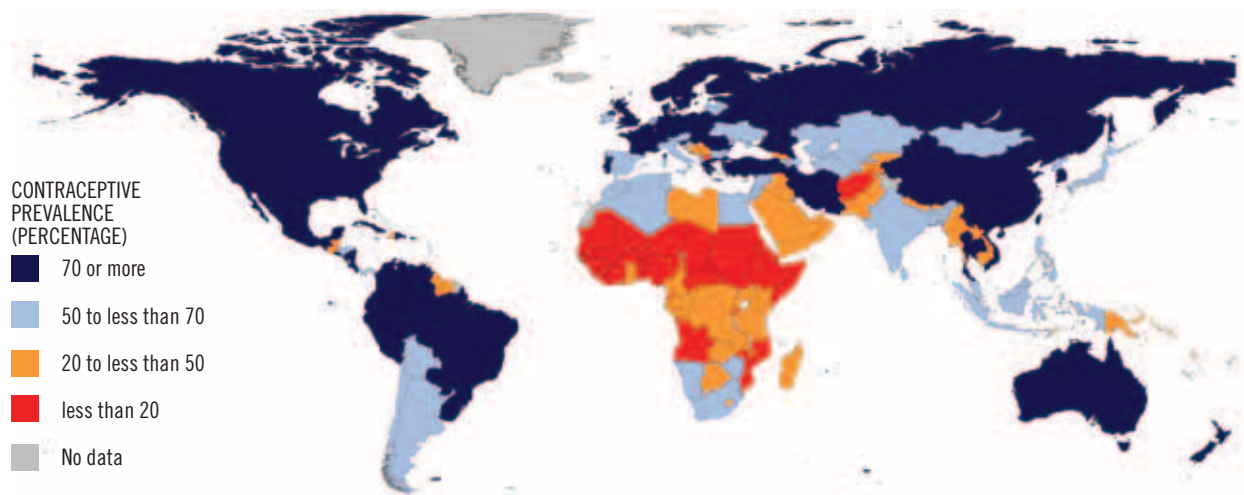
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PROMOTING  
FAMILY  
PLANNING  
PROGRAMS

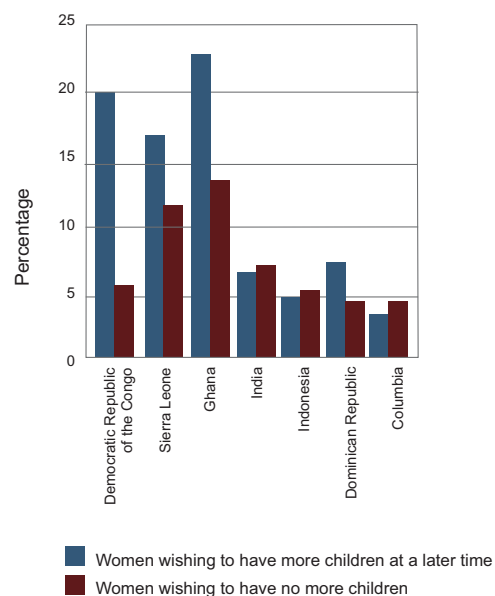
Sikoro women in Mali listen to a presentation on family planning given by members of Mali Health Organizing Project's Community Health Workers program. © 2009 Devon Golaszewski, Courtesy of Photoshare

FIGURE 11:  
GLOBAL CONTRACEPTIVE USE: PERCENT OF WOMEN MARRIED OR IN UNION AGES 15-49 USING ANY METHOD



Source: United Nations, World Contraceptive Use 2011

FIGURE 12  
UNMET NEED FOR CONTRACEPTIVES AMONG WOMEN WISHING TO HAVE MORE CHILDREN LATER AND WOMEN WISHING TO HAVE NO MORE CHILDREN FROM 2005 TO 2010



Source: (14) DHS

In Africa, 25% of women of reproductive age expressed a desire to postpone pregnancy but were not using contraceptives, a level that exceeds actual use.<sup>10,20</sup> There is significant unmet demand for contraceptives – in 23 countries it is higher than the regional average and highest in Uganda at 41% (see Figure 12).<sup>20</sup>

One study estimates that if all unmet need for limiting was satisfied, the total fertility rates in West and Central Africa would decline from 5.4 to 4.9 and in East and Southern Africa from 5.0 to 3.7 births per woman.

### Africa needs a more favorable economic environment

The sectors that have sustained Africa's economic growth are not likely to solve two specific challenges hindering Africa's complete takeoff: 1) the need to generate additional employment opportunities, 2) Africa's vulnerability to price fluctuations, 3) Africa's weak investment in infrastructure; and 4) Africa's need for increased transparency and elimination of corruption in governance.

A large portion of Africa's growth is driven by capital-intensive extractive industries, which have limited forward and backward linkages with the rest of the economy.<sup>19</sup> As a result economic growth of the continent has not been accompanied by strong job growth. As the large youth cohort reaches working-age, many are unemployed or underemployed, often being absorbed by the informal sector for distributive trade, which remains hard to tax and has low-productivity.<sup>3</sup>

In addition, while diversification is slowly underway, large trade imbalances remain because primary commodities are still dominant in Africa's export composition. As a result, two-thirds of the growth or contraction of the value of Africa's trade is a result of changes in price.<sup>19</sup> While the trend in rising commodity prices has been beneficial for Africa's growth up to now, this pattern leaves Africa partially vulnerable to global economic fluctuations. In addition, while Africa has begun to diversify its trading relationships, this trend may soon reach a standstill. Capturing additional shares of emerging and fast growing Asian markets requires an expansion of Africa's manufacturing base to participate in the production and trade of products that are higher up the value chain.<sup>19</sup>

Two other challenges need to be addressed for African countries to attract additional capital and reap the demographic dividend. First, some countries have made major investments to develop infrastructure, but energy use, roads and telecommunications including internet and mobile access remain major limiting factors to additional investments (see Figure 13).<sup>19</sup> Second, Africa's growth gains are compounded by the absence of transparent and predictable institutional frameworks that might prevent manipulation of the socio-political context for economic gains and corrupt practices.<sup>19</sup> Both domestic and foreign confidence in the integrity of policy and regulatory frameworks is compromised, leading to doubts about macroeconomic stability and thus constraining investments. While the policy and institutional environment for doing business in Africa has improved, much still remains to be done to gain the full confidence of investors.

### Africa needs to consider the role of migration for youth

In constructing policy to successfully transition the significant youth cohort into the workforce, migration as well as the informal sector should be considered. The youth bulge is an important factor in the motivations of youths to migrate in the search of jobs and improved living conditions away from home. Migration's age-selectivity is well documented. Among all age groups of migrants, youths are the highest in both relative and absolute terms. They

have the highest propensity to migrate, and youths who remain behind have a high desire to do the same. In some instances, the decision to migrate is deliberately supported by public policy, particularly in countries where emigration is considered an important contributor to production and economic growth. In other situations, the decision to migrate may be a reflection of dissatisfaction with public and developmental policies in the migrant's home country. Figure 14 illustrates the importance of migration for the African continent.

Regardless of the reasons, migration is an important component of national development policy as well as individual and family welfare. In addition to reducing pressure on the labor market, migration plays a major role in changing lifestyles and contributing to the demographic transition. In many cases, migrants transfer money formally and informally to their home countries. These remittances often cover the cost of education, health, and housing, among others. Therefore, migration must feature in the policy and investment options for harnessing the DD in Africa.

The youth who do not migrate are often employed in the informal sector, which is often not included in the national development frameworks and strategies. For example, informal mining is flourishing in many countries in Africa as an important source of income and economic activities. Most of the miners in this sector are youth between the ages of 20 to 35. In fact, the informal sector in mining, skills in information, technology and communications and other entrepreneurial activities have absorbed youth and enhanced their business orientation and capacity for self-employment. In other words, youth are becoming industrious and often successful investors in their home countries. In Africa, this trend is gaining momentum and cannot be ignored when considering the DD.

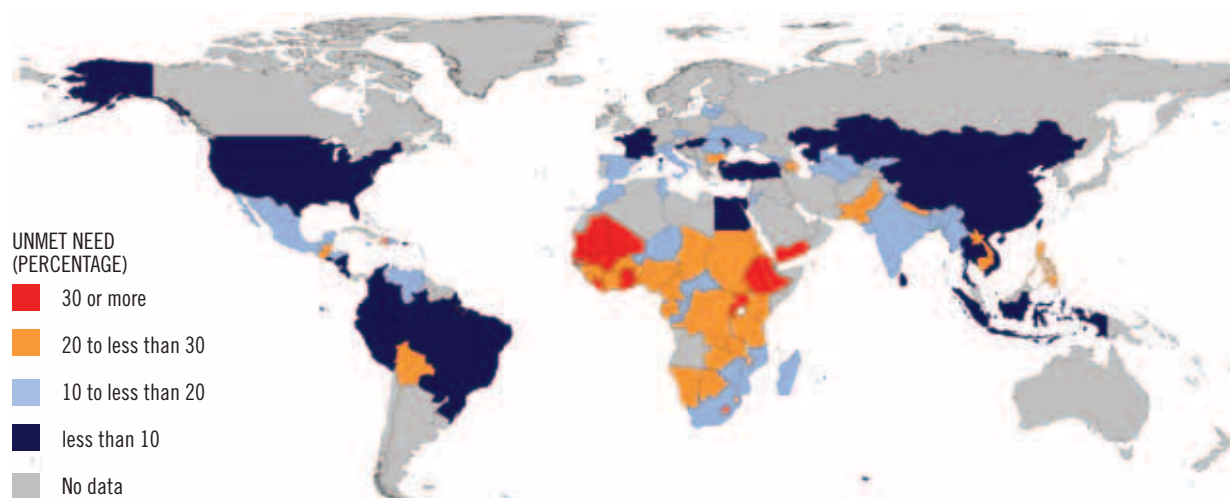
Both migration and absorption into the informal sector indicate that some of the policies and decisions needed for Africa to harness the DD may not be under the direct prerogative of governments. In other words, DD policy options must extend beyond national development policy and planning frameworks to include the youth themselves as well as alternative policy options that better suit the aspirations of many of them.

FIGURE 13  
HIGH COST OF AFRICAN INFRASTRUCTURE COMPARED TO OTHER DEVELOPING REGIONS

SECTOR	AFRICA	OTHER DEVELOPING REGIONS
POWER TARIFFS (\$ PER KILOWATT-HOUR)	0.02-0.46	0.05-0.1
WATER TARIFFS (\$ PER CUBIC METER)	0.86-6.56	0.03-0.6
ROAD FREIGHT TARIFFS (\$ PER TON-KILOMETRE)	0.04-0.14	0.01-0.4
PMOBILE TELEPHONY (\$ PER BASKET PER MONTH)	2.6-21.0	9.9
POWER TARIFFS (\$, 3 MINUTES TO US)	0.44-12.5	2.0
INTERNET DIAL-UP (\$ PER MONTH)	6.7-148.0	11

Source: 19

FIGURE 14:  
WORLD MAP OF THE THE PERCENT OF THE LABOR FORCE THAT EMIGRATES



Source: *World Development Report 2013*, p21

### Africa needs an expanded and more educated workforce

A highly educated workforce is a driver of lower fertility and part of the human capital required for increased economic growth. Its importance in realizing the demographic dividend should therefore not be underestimated. While access to quality education remains a problem in Africa, the low recognition of the importance of education for children, especially girls, is also a hindrance. Africa is therefore faced with two challenges: low school attendance and attainment for the general population and barriers restricting female education.<sup>14</sup>

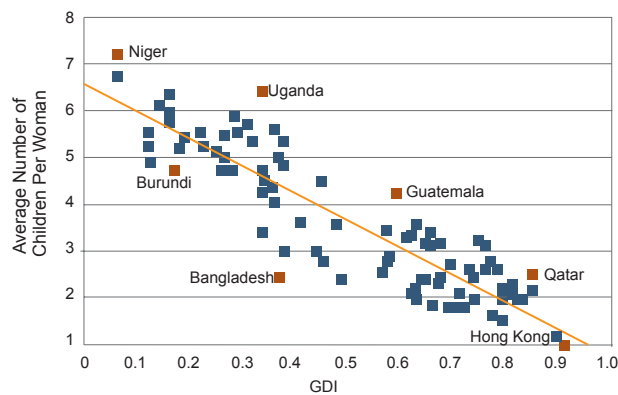
It has been estimated that only 62% of students complete primary school in Africa. Of those, only 65% move on to secondary school. Even though the law in many African countries mandates school attendance, about 35 million children do not attend school at all. If disaggregated by gender, these figures are far worse for females. At all educational levels, girls are disadvantaged, but the difference increases with higher education levels. For example in Benin, less than half as many women as men ages 20-64 years old have attended secondary school. In Liberia, women complete a university degree half as often as men.

With regards to quality education, in particular secondary and tertiary education, access is a main issue because African countries have not been equipped to provide education adequate to meet the needs of the growing number of young people.<sup>19</sup> The Africa region does not have the necessary infrastructure or personnel required for quality education. The shortage of buildings, instruction materials, modern teaching methods, and trained teachers have made learning conditions very poor.<sup>14</sup> In countries ravaged by military conflict, entire generations are sometimes denied schooling.

### Africa needs a more empowered female population

The social disadvantages faced by women extend beyond their access to education. According to the UN's Gender-related Development Index, women in Africa are significantly behind men with regards to education, life expectancy, income and rights, including both marital and reproductive.<sup>17</sup> Niger stands out with the highest gender inequality in the world. In many countries women are not able to interact equally with local authorities. In the Democratic Republic of Congo and Togo, women are granted fewer property rights than men.<sup>14</sup>

FIGURE 15:  
CORRELATION BETWEEN THE AVERAGE NUMBER OF CHILDREN PER WOMAN AND GENDER EQUALITY, MEASURED BY THE GENDER-RELATED DEVELOPMENT INDEX IN 2007



Source: 14

There are clear implications for fertility when the female population is disempowered (see Figure 15). If male opinions hold sway over females', they will have the authority in deciding how many children their wives have. Even armed with information about contraceptives and reproduction, a woman may not be allowed, either legally or culturally, to assert herself against her partner. Studies have shown that wives in developing countries tend to want fewer children than their husbands and that women tend to want fewer children than they actually have. Without an improvement in gender equality, their preferences for smaller families are unlikely to be achieved.<sup>14</sup>

In some African countries, the absence of gender equality is readily observable in early marriage, a life development that perpetuates female disadvantages. Fewer investments in healthcare, education and personal development are made for girls because these would only benefit their new husbands' families. Early marriage is often associated with early births as well as a greater number of births and is therefore a deterrent to aggregate fertility declines.<sup>14</sup>



MAIN MESSAGE:  
**AFRICA MUST ADDRESS  
DEMOGRAPHIC, ECONOMIC,  
EDUCATION, AND GENDER  
DISPARITIES TO HARNESS  
THE DD**

- The pace of fertility decline must accelerate in Africa
- In the near future, Africa will be challenged by a growing youth population entering working-age with low-level skills and few employment opportunities.
- Africa needs to strengthen economic prospects through increased job opportunities, trade diversification to protect against fluctuations, infrastructure investment, and institutional transparency.
- Africa must improve the poor education access and low attainment for the general population, and particularly address barriers to female education.
- Africa must empower women and promote gender-equality

Facilitating knowledge exchange in rural Kenya. The focus is on information about small scale sustainable agriculture, climate change adaption, natural resources management, and other issues related directly to improving people's lives. Information is accessed through community-based Knowledge Centers.  
© 2011 Photo Courtesy of the Bill & Melinda Gates Foundation

## CALL TO ACTION: AN OPPORTUNITY THAT NEEDS TO BE SEIZED

### Africa's demographic situation requires actions to create a DD opportunity

Given Africa's demographic situation, generally characterized by a slow fertility decline, action will be needed to create a favorable age structure and open the window of opportunity for a demographic dividend. Figure 16 illustrates the economic trajectories of income growth to 2008 for two countries with similar per capita GDP in 1950 – Nigeria and Indonesia – and their divergence. Africa's rapid and very youthful population growth requires immediate attention first to manage the latter's successful transition into working-ages. Failure to incorporate this large generation of youth into the economy may result in the divergence seen between Nigeria and Indonesia and potentially social unrest.

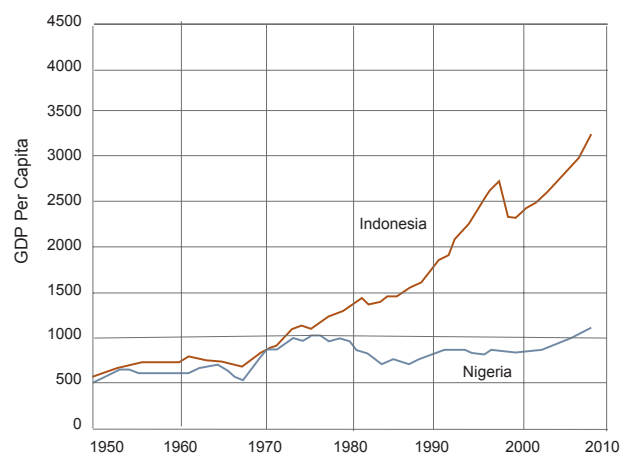
Subsequent action is needed to respond to couple preferences for smaller families. In most African countries the pace of fertility decline can be accelerated by simply responding to existing contraceptive demand in order to achieve the demographic profile essential for the dividend. At the same time, such action must respect individual reproductive rights and voluntarism. Historically, following the beginning of a decline in fertility, there has been an approximate 30-year period before the population bulge reaches working-age and the economic spur from the demographic dividend can be experienced. Given Africa's present strong economic growth and burgeoning youth population, government, business and civic leaders will need to identify new pathways to sustainable development in the short term, while simultaneously investing to grow its GDP over the long term.

### Africa's economic and social environment requires actions to reap the DD

Despite the lag time between the youth bulge's formation and entry into working-ages, advance action will be needed to prepare a growth-conducive environment that will allow African countries to capitalize on the demographic dividend. Most policies will need that period of time to manifest meaningful social and economic improvements in African countries.

Given Africa's promising economic potential, there are solid foundations on which to build national economies able to integrate large youth cohorts in the near term. However, it is clear that while steps have been made in the right direction, additional actions are critically needed to secure Africa's economic growth and create employment opportunities for the new workers. Action is also needed to supply a workforce of high quality.

FIGURE 16:  
TWO ECONOMIC TRAJECTORIES OF INCOME  
GROWTH (GDP PER CAPITA, IN CONSTANT 1990  
US DOLLARS): INDONESIA AND NIGERIA



Source: 21





MAIN MESSAGE:

**ACTIONS TO CREATE THE DD OPPORTUNITY AND TO REAP THE DD BENEFITS ARE NEEDED IN AFRICA**

- First, Africa must successfully incorporate the current large youth cohort into the workforce
- Secondly, Africa must promote sustained fertility decline to create a youth bulge
- Thirdly, Africa must simultaneously invest in the necessary sectors to prepare a favorable economic environment for the bulge's entry into the workforce and reap the DD benefits

A community health prevention volunteer demonstrates the proper use of condoms to a group of women from the rural community of Tevele, Massinga district, Mozambique. The community of Tevele has formed a Community Health Initiative to address the most significant health issues in their community, including HIV/AIDS.

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In the Korogocho slums of Nairobi, Kenya, a mother with HIV discusses family planning with an HIV activist and trainer. In the mother's lap rests one of her two children born after she was infected.

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## HARNESSING THE DEMOGRAPHIC DIVIDEND: POLICY RECOMMENDATIONS

The following section recommends key policy actions to address the imminent needs of Africa's young population today, i.e., policies for the short term, as well as the demographic and economic issues to position Africa to benefit from the demographic dividend, i.e., policies for the long term.

### POLICIES WITH SHORT-TERM IMPACT

#### Objective: Integrate the current youth generation productively into the economy

1. **Invest in economic sectors needing low-skilled workers in order to generate jobs for the large population of working-age.** The already adult and not-yet-skilled cohort of workers needs to be absorbed into the economy through expanded opportunities in labor-intensive sectors. These sectors include agriculture and manufacturing given Africa's rich natural resources.
2. **Create employment opportunities for females.** Women who are employed will invest their earnings in their children. The gender inequality in labor force participation deprives the economy of contributions from half the working-age population. Employment policies should target gender equality in workforce participation.

#### Objective: Prepare for the aging of the youth generation

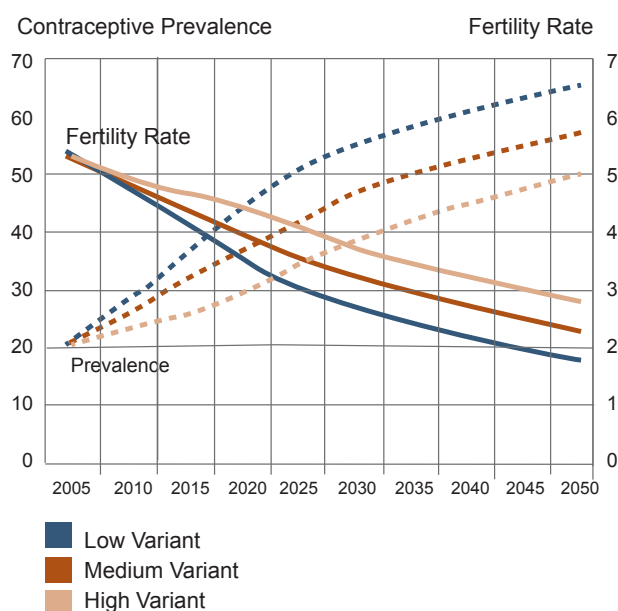
3. **Strengthen social security systems to prepare the large working-age cohort for their inevitable aging.** To prevent diminution of the demographic dividend potential by the present youth bulge, this generation, and those that follow it, should be encouraged and enabled to finance their consumption needs in old age.
4. **Promote private savings as a means for old age security with incentivizing economic policies.** These may take the form of creating or expanding private pension plans (targeting the lower wealth segments of the population) or modifying tax treatment of income to incentivize savings.

### POLICIES WITH LONG-TERM IMPACT: CREATING AN OPPORTUNITY FOR THE DEMOGRAPHIC DIVIDEND

#### Objective: Meet lower demand for fertility through public health programs

1. **Increase investments in family planning and other maternal and child health programs** to allow families to realize their desire for lower-than-actual family sizes. Needs in disadvantaged communities should be targeted first. This is the most cost-effective pathway by which fertility levels may be reduced and invoke numerous other benefits for the health and development of the population. Increased investments should be geared towards:
  - a. **Improving family planning and reproductive health awareness through increased outreach at the community level, aimed at both men and women.** Some programs should be specifically geared towards adolescents, men and displaced populations. Including men in outreach is important to build their acceptance and endorsement of family planning, especially in patriarchal societies.
  - b. **Increasing access to contraceptive services** (through geographic coverage and elimination of commodity shortages). Both awareness and access efforts should link pregnant women identified during antenatal care to postpartum care, including family planning, while simultaneously encouraging facility-based delivery. As one example, increasing the number of women seeking care during pregnancy can be achieved through the distribution of vouchers for these services.<sup>14</sup> Contraceptive access should be provided to young sexually active and unmarried women as well as married women.
  - c. **Promoting the adoption of long-acting contraceptive methods, thereby lowering unintended pregnancy rates.** Figure 17 illustrates the effectiveness of contraceptive practice in enabling couples to achieve their desired fertility. Long-acting methods are preferred for couples who have completed their family sizes; these methods have better compliance, less user failure and are effective over multiple years.
2. **Enact and enforce laws to prevent early marriage.** This may require a combination of legal reform and outreach efforts to promote cultural, systemic and behavioral change with regard to early marriage. Families with lower socioeconomic status are more likely to practice early marriage of their daughters; thus measures that provide alternative financial solutions to brides as property and bridal dowries that will delay marriage should be implemented.

FIGURE 17:  
TWO ECONOMIC TRAJECTORIES OF INCOME  
GROWTH (GDP PER CAPITA, IN CONSTANT 1990  
US DOLLARS): INDONESIA AND NIGERIA



Source: 21

3. **Expand coverage of basic newborn, infant and child health services.** Active promotion of programs for child immunization and infectious disease eradication are needed to sustain ongoing declines in infant and child mortality. Increasing child survival rates will build parents' confidence in their families' future welfare and willingness to invest in children's schooling. Healthy development during the fetal, newborn, infant and child years are also protective against chronic disease in adulthood.

### Objective: Lower fertility demand through education policy

4. **Enact laws to mandate extended schooling for longer periods of time and equally for females and males.** In addition to improving human capital, this will delay the age at marriage and first birth, and enable young people to launch their work careers.

5. **Promote female education to increase enrolment and attainment.** The benefits of increased female education are numerous and include increased participation in the workforce, income earnings and economic revenues, status of women, and individual efficacy. In addition, better female education improves household health and nutrition, as well as management of sick children and prevention of unintended pregnancies. Education can be made attractive through such incentivizing interventions as conditional cash transfer or cash-on-delivery programs, which provide funds to parents in exchange for their children's school attendance. School environments also need to be girl-friendly, such as having personal hygiene products available at schools.

6. **Prioritize measures that increase the number of females who complete secondary education.** The more education women (and men) receive, the higher their motivation for skilled jobs, entrepreneurial ventures, and career aspirations. Through peer networks in secondary school, ideation and norms change, especially around the timing of marriage and family building.

7. **Promote informal education programs to women who are out of school either because of age or family obligations.** For example, microfinance programs can offer adult women microcredits for pursuing education courses, which can include subjects such as hygiene, nutrition, and family planning.

## **POLICIES WITH LONG-TERM IMPACT: CAPITALIZING ON THE DEMOGRAPHIC DIVIDEND**

As Africa enacts policies that lead to a contraction in births changing the shape of the population age structure, it must also develop policies and implement actions with long-term impact that heighten the productivity of the youth bulge in their working-ages and help realize the dividend.

### **Objective: Create a growth-conducive environment through economic policies**

- 1. Promote free trade to allow for economic expansion.** This enabling market orientation can be achieved through a reduction in protectionist policies.
- 2. Diversify the trade portfolio away beyond agricultural materials and minerals to reduce the vulnerability of Africa's economies to commodity price fluctuations.** Such a shift from unbalanced trade can solidify Africa's long-term growth, thereby promoting additional external investments and allow the region to increase its shares in emerging markets. It could also increase African countries' trade surplus and build buffers in their foreign exchange reserves. This additional capital can be re-invested to improve the quality of human capital or in needed infrastructure for development.
- 3. Diversify the trade portfolio in terms of destination by expanding relationships with emerging markets as well as promoting intra-African trade through accelerated regional integration.** Such a prospect requires the improvement of cooperative links within the region, including better cross-country roads, banking cooperation, harmonized regulations and tax policies, and simplified customs, border control, cargo inspection procedures.
- 4. Invest in infrastructure to improve the supply of electricity, paved roads, telecommunication networks, and internet connectivity.** Developing business-supportive services will greatly reduce costs for foreign investors and promote additional investments. Infrastructure investments can also unlock additional productive capacity that cannot currently be exploited.
- 5. Improve political and economic governance to gain the trust of foreign and local investors.** This will require deepening democratic governance by improving people's participation in the political process, promoting free and fair elections, strengthening accountability and transparency in decision-making. In addition, efforts to battle corruption and inefficiencies must be increased.

- 6. Create favorable economic conditions for local savings and foreign investments.** This should mainly take the form of reduced costs of doing business. African countries should focus on attracting investment for certain industries, namely agri-business (to increase research and productivity) and infrastructure.

### **Objective: Integrate new workers into the economy through labor policy**

- 7. Invest in economic sectors that can create significant employment opportunities for the youth bulge.** This requires diversifying the economy by shifting away from capital-intensive sectors to labor-intensive sectors. It may lead to agriculture having a smaller share of the GDP but will also increase manufacturing's share, which is a more labor-intensive sector. It will also require investing in agri-business research to increase agricultural productivity.
- 8. Ensure that new jobs are progressively created in more knowledge-intensive sectors with greater added value as the educational quality of the population increases.** Employment opportunities should follow the growing skill set of the population.
- 9. Support the development of indigenous entrepreneurs** with the capacity to work with their foreign counterparts in mutually beneficial business relationships.
- 10. Ease barriers to entry into the workforce and promote job mobility and labor flexibility** to ensure that the workforce can adapt to changes in the economic climate.
- 11. Promote gender-neutral hiring practices to take advantage of an increasingly better educated female population and accelerate its successful transition into the working world.** Improving gender-equality in the workforce may require setting quotas for female employees or providing financial incentives for hiring women.

## Objective: Increase the supply of new skilled workers through education policies

12. **Invest in the education system to increase the number of educational opportunities available, as well as their quality.** This investment requires an increase in the number of teachers as well as an improvement in teacher training and compensation. The education infrastructure also needs to be expanded to accommodate the increase in students, and older schools will need to be updated.

13. **Expand secondary and tertiary education enrolment among all ages and sexes in order to graduate workers with advanced skills and able to occupy positions in sectors producing high-value goods and services.** Raising enrolment requires providing incentives to encourage students to continue their education as long as possible. Incentivizing interventions have been successfully implemented for primary schooling through conditional cash transfer programs and could be adapted for secondary education in Africa.

14. **Emphasize the importance of science, technology, engineering and mathematics, as well as business entrepreneurship, management and leadership training** throughout the educational system. Universities, in particular, need to innovate and serve as catalysts for technological change in order to produce graduates with skills appropriate for transformative and knowledge-intensive economic sectors.

15. **Expand vocational training opportunities to ensure that students graduate with skills useful for the current work environment and general know-how.** Such programs can facilitate transitions between school and employment.

## POLICIES WITH LONG-TERM IMPACT: PROLONGING THE DEMOGRAPHIC DIVIDEND

As the youth bulge ages through its economically active years, actions will need to be taken to prepare for the increasing number of dependents. A critical time is when the working-age population peaks. Policies to prolong the dividend past the peak in working-age population can, in fact, be implemented and finance support for this cohort's seniors.

### Objective: Prolong the dividend through economic policies

1. **Reinforce policies to promote private savings among the aging working population to finance their retirement.** Incentives for personal savings include price stability and low inflation as well as instilling competition, transparency, and efficiency in financial institution practices.

2. **Reduce any remaining deficits with regards to knowledge transfer, entrepreneurship, and science and technology advances** to push the economy towards technology-driven growth.

### Objective: Prolong the dividend through employment policies

3. **Lengthen the working-age period** to utilize the maximum number of years that are available to workers before they become retirees dependent on the public sector

4. **Build up social security systems** as a combination of state pensions, employment pensions, and private savings. Given the imminent size of the older population, the pay-as-you-go scheme in place in many developed nations will not be adequate.

5. **Invest in programs to allow adults to gain new skills and switch or down-shift careers** in response to changing demands of local and global economic environments.

### Objective: Prolong the dividend through health policies

6. **Invest in health promotion and quality healthcare provision, particularly for conditions associated with old age.** As countries progress along the epidemiologic transition, non-communicable diseases are likely to predominate. The costs of treating these diseases are often high but can be managed through well-considered public health programs, in particular, those investing early in maternal and child health.

The demographic dividend is not automatic. It depends on both the creation of and capitalization on opportunities for a set of specific policies and environments, which make the demographic dividend a time-sensitive phenomenon.

Penda Sidibe sells guava fruit in front of her home after receiving a loan from Mali Health Organizing Project's microfinance program, providing a supplementary income for her family. MHOP's microfinance program give individual loans to local women, allowing them to invest in revenue generating activities like fabric-dyeing or the sale of food.

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A woman with her child attends a condom promotion in rural Uganda conducted by the Uganda Health Marketing Group (UHMG), in partnership with the Strengthening TB and HIV/AIDS Response in eastern-central Uganda (STAR-EC), with funding from USAID.  
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