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## Youth, Jobs, and Structural Change: Confronting Africa's "Employment Problem"

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## **AFRICAN DEVELOPMENT BANK GROUP**

# **Youth, Jobs, and Structural Change: Confronting Africa’s “Employment Problem”**

**John Page<sup>1</sup>**

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**Office of the Chief Economist**

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## 1. INTRODUCTION

Africa has enjoyed fifteen years of sustained economic growth. Per capita income for the region as a whole is rising steadily, and regional growth has exceeded the global average. During the last decade six of the world's ten fastest-growing economies were in Sub-Saharan Africa. Yet, there are worrying signs that this growth turnaround has not resulted in robust growth of “good” jobs – those offering higher wages and better working conditions – especially for the young.

Driven by a delayed demographic transition, the share of youth (aged 15-24) in Africa – both north and south of the Sahara - has been rising over time and is now higher than in any other part of the world. This demographic bulge offers the possibility of a growth dividend, if – as in the case of East Asia – a rapidly growing work force can be combined with capital and technology. But it can also represent a major threat. Africa is not creating the number of jobs needed to absorb the 10-12 million young people entering its labor markets each year, and as recent events in North Africa have shown, lack of employment opportunities in the face of a rapidly growing, young labor force can undermine social cohesion and political stability.

This paper argues that Africa's “employment problem” is in fact a symptom of its lack of structural change – the shift in resources from lower to higher productivity uses. Despite rapid growth, Africa has had very little structural change (Arbacha and Page, 2009). While many African economies have relatively low unemployment rates, including for the young, they also have large informal sectors, condemning many of their workers to vulnerable employment and working poverty. Indeed, there is some evidence that since 1990 structural change has moved in the wrong direction in Africa: labor has moved from higher to lower productivity employment (McMillan and Rodrik, 2011).

Seen from this perspective, employment policies cannot focus only on the supply side of the labor market. Indeed, while labor market reforms and active labor market policies can make a contribution to solving the employment problem, the greatest traction is likely to come from policies and public actions designed to accelerate the growth of sectors with high value added per worker: in short from a strategy for structural change.

The paper is organized in the following way. The next section summarizes recent evidence on employment in Africa. It argues that the youth employment problem is a subset of a larger employment problem arising from growing informalization of work and limited growth of good jobs. Section 3 sets out the nature of Africa's "structural deficit". It makes the case that the typical low income economy in Africa needs to accelerate the growth of agro-industry, manufacturing and tradable services to create higher productivity jobs.

Sections 4 and 5 turn to public policy. Because of the diversity of Africa's economies and labor markets, public actions need to be tailored to individual country circumstances. Section 4 begins the discussion by examining potential labor market interventions. Section 5 then turns to policies to accelerate structural change and employment creation. Section 6 concludes.

## **2 THE NATURE OF THE "EMPLOYMENT PROBLEM"**

On the face of it sub-Saharan Africa does not appear to have a severe "employment problem". In 2009 the overall unemployment rate was 6.4 percent compared with a global average of 4.7 percent.<sup>2</sup> The regional unemployment rate has been relatively stable since 2000 and ranks third, behind the Middle East and North Africa and Europe and Central Asia (Figure 2.1). Between 2004 and 2008, North and sub-Saharan Africa had some of the most employment-intensive growth in the world. Average employment elasticities of growth were 0.7 and 0.5, respectively (AfDB, 2012). Globally the employment elasticity of growth is estimated to be about 0.3, and it ranges from a low of 0.2 in East Asia to a high of 0.9 in the Arab Middle East (Kapsos, 2005).

Based on the ILO definition, youth unemployment rates in many Sub-Sahara African countries are relatively low compared to world averages. Worldwide there is a fairly regular relationship between the overall rate of unemployment and the unemployment rate of the young (Figure 2.1). Sub-Saharan Africa's youth unemployment rate is below that which would be predicted from the region's overall rate of unemployment. The ratio of youth to adult unemployment rates in sub-Saharan Africa is 1.9 compared to 2.7 globally (Table 2.1). Not surprisingly, North Africa's youth unemployment rate substantially exceeds its predicted value.

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<sup>2</sup> Unemployment rates in Africa are likely to be underestimated because the ILO excludes people who were not working, were not actively looking for work, but say they would take a job if one were offered.

## **Variations across countries are important**

The African Development Bank (AfDB) has recently completed an analysis of household and labor force surveys in 16 African countries (AfDB, 2012). This represents the most comprehensive picture to date of the performance of African labor markets. The AfDB study finds considerable heterogeneity in Africa's labor markets. While on average neither overall nor youth unemployment rates in sub-Saharan Africa stand out globally, the variation across countries is significant.

Broadly, the countries analyzed by the AfDB fall into three groups. In African countries with well-structured labor markets and a large formal sector, unemployment tends to be high. Thus is particularly true of the southern cone of Africa, where unemployment rates exceed 15 percent in Botswana, Namibia and South Africa. Lesotho has both a large informal sector and high unemployment. Unemployment is also high by international standards in North Africa – especially in Algeria and Tunisia. Unemployment is relatively low in lower income countries – falling in the range of one to five percent for countries such as Ethiopia, Ghana, Tanzania and Uganda – while the informal sector is large. Kenya, Mali, Zambia and Zimbabwe comprise a third group with relatively large informal sectors and unemployment rates in the range of five to 15 percent (Figure 2.2).

## **The demographic challenge**

With almost 200 million people aged between 15 and 24, Africa has the youngest population in the world. In a majority of African countries the young account for more than 20 percent of the population. In 2011 the ten countries in the world with the youngest populations were all in Africa. While the proportion of young people (15-24) is projected to decline globally, it will stay at the same level in Africa for the foreseeable future (Figure 2.3). At the projected rates of population growth the number of young people in Africa will double by 2045 (AfDB, 2012). By 2030 Africa is projected to have as many youth as East Asia and by 2050 it could also exceed the youth population in South Asia.

The rapid growth of the labor force implied by Africa's demographic transition will pose serious challenges. By 2040, Africa will have the largest workforce in the world, surpassing both China and India (McKinsey, 2010). This offers an unrivalled opportunity for economic and

social development, if these new workers can find places in the productive sectors of the economy. However, it could also present a significant risk, if Africa fails to create sufficient economic and employment opportunities.

Although the young constitute about two fifths of the continent's working age population, they make up three fifths of the total unemployed. All of the African countries analyzed by the AfDB had higher youth than adult unemployment rates. In most countries youth unemployment occurs at a rate more than twice that for adults. In Botswana, Congo, and South Africa the youth unemployment rate is alarmingly high: more than one in three young people are unemployed compared to the world average of 14 percent. The average unemployment rate for those between the ages of 15 and 24 is about 30 percent in North Africa. Nigeria stands out because the ratio of the youth unemployment rate to the adult unemployment rate exceeds five to one. Statistical analysis of the likelihood of unemployment in 12 countries indicates that the young are more likely to be unemployed than any other age group (AfDB, 2012).

### **Gender and geography**

The employment prospects of young women vary considerably across countries. Out of 15 countries analyzed by the AfDB, the female youth unemployment rate was higher in eight. In the seven remaining countries the opposite was true (AfDB, 2012). In nine out of 14 countries labor force participation rates were lower among young females than among young males, but a significant number of countries (5 out of 14) showed no statistically significant effect of gender on youth labor force participation. North African countries stand out for much lower female labor force participation rates than the global or sub-Saharan Africa averages.

The AfDB also found that in 8 out of 12 sub-Saharan African countries (and in all countries in North Africa) young females are more likely to be unemployed than their male counterparts. In the four remaining countries, there was no statistically significant effect of gender on the likelihood of employment. In sub-Saharan Africa gender inequalities manifest themselves primarily in the much higher share of women in vulnerable employment in comparison to men. Female working poverty rates exceed male rates in 22 out of 27 sub-Saharan countries with available data (ILO, 2010). In North Africa women who seek employment tend to face much poorer employment prospects than men with equivalent skills and experience.

Young people in Africa migrate from rural to urban areas looking for better opportunities, and the proportion of young people in urban areas tends to be slightly higher than in rural areas. This, in turn, has increased competition in the urban labor market. Youth unemployment is higher in urban than in rural areas. In some of the countries analyzed by the AfDB, the urban youth unemployment rate was more than six times the rate in rural areas (AfDB, 2012). In such rapidly growing economies as Ethiopia, Ghana, Tanzania and Uganda migration in response to rapid growth has resulted in urban youth unemployment rates of more than 15 percent.

### **The role of education**

There is a severe mismatch between the skills possessed by young workers and those demanded by employers. Despite the increase in enrollments in most sub-Saharan African countries – especially at the primary level – the out-of-school population has very low educational attainment (World Bank, 2008). Thirty-six percent of the 15- to 24-year-olds in sub-Saharan Africa have never attended school. Only 28 percent have completed primary school, and only eight percent have completed secondary school. This means that about two-thirds of all young workers in the labor market—about 95 million young people—lack the basic skills needed to be competitive in the labor force.

In almost all countries in the region, a majority of out-of-school youth did not finish primary school. In Burkina Faso, Ethiopia, and Mozambique, for example more than 75 percent of out-of-school youth have no education at all. Household surveys indicate that countries like Mali, Niger, Ethiopia and Senegal have youth literacy rates of less than 60 percent (AfDB, 2012).

In most African countries those with the highest education levels tend to take longer to search for a job and have higher unemployment rates than those who are less well educated. Except for Niger and South Africa, youth unemployment rates tend to be lowest among those with either no or basic education (AfDB, 2012). In 6 out of 14 countries for which data were available, the unemployment rate for those with tertiary education was the highest of all.

Evidence from Botswana, Ghana, South Africa and Uganda, however, indicates that those with higher levels of education are more likely to transition out of unemployment over time than those with lower levels of qualifications. Analysis of earnings also shows that those with higher educational qualifications earn more when employed (AfDB, 2012). One possible

explanation for the co-existence of high returns to education and high unemployment rates for the educated is that the more educated have higher reservation wages and higher returns to job search. They are also more likely to be able to call on family support to sustain a lengthy job search.

### **Unemployment and informality**

African countries with low unemployment rates tend to have a large informal sector (Figure 2.2). Low unemployment rates coexist with high levels of working poverty and vulnerable employment (AfDB, 2012). The ILO (2011) estimates that three out of four jobs in sub-Saharan Africa can be labeled “vulnerable” due to workers working on their own-account or as unpaid family workers. The poor quality of employment in most of sub-Saharan Africa is also reflected in the high share of working poor in total employment. In 2011 81.5 percent of workers in Africa were classified as working poor, compared to the world average of 39.1 percent (ILO, 2011).

There is a strong negative relationship between the rate of growth and the employment intensity of growth across Africa (Figure 2.4). The region’s fastest growing economies – Ethiopia, Rwanda, Tanzania and Uganda – also have its lowest elasticities of employment with respect to growth. Slower growing economies – South Africa notable among them – have higher employment elasticities. One possible interpretation of this result is that the sources of growth in the region’s more rapidly growing economies have not been in employment-intensive sectors. Rapid growth has created few good jobs, pushing those seeking work into informal self-employment and family labor.

When younger African workers find a job it is likely to be of low quality in terms of wages, benefits and job security. In many African countries, self- and informal employment account for the overwhelming majority of young workers in both rural and urban areas (Table 2.2). With the exceptions of Botswana, Nigeria and South Africa – all of which have high youth unemployment rates – less than 20 percent of Africa’s young workers find places in wage employment. Over 70 percent of young workers in Congo, Congo DR, Ethiopia, Ghana, Malawi, Mali, Rwanda, Senegal, and Uganda are either self-employed or contributing to family work (AfDB, 2012). Most of these jobs offer low wages, few benefits and few opportunities to build

skills. For the great majority of African economies the employment problem is more about the quality of the job than the absence of a job.

### **3. STRUCTURAL CHANGE, GROWTH AND JOB CREATION**

The key to reducing unemployment and informality – both among the young and in general – is rapid growth of good jobs. These are employment places capable of paying good wages and building skills. If the history of those countries that have successfully sustained growth, job creation and poverty reduction is any guide, creating such good jobs will require significant structural change. Economies that have made the transition from low income to high income status typically have experienced significant changes in their economic structure (Kuznets, 1955; Chenery, 1986).

#### **Africa's structural deficit**

One way to measure the extent of the structural change needed is to compare Africa to a benchmark. Such a benchmark economy was constructed using the sectoral shares of value added and employment in a sample of countries that have succeeded at sustained growth and job creation at the time at which they crossed the World Bank defined lower-middle income (LMIC) threshold.<sup>3</sup>

The structure of a “typical” low income African economy is far from the benchmark (Table 3.1). The value added share and the labor share of manufacturing are about half of the benchmark value. The relative labor productivity of manufacturing is below that of the benchmark, suggesting that little productivity growth has taken place within the manufacturing sector in Africa. The high weight of public employment and the failure of employment statistics to include informal employment are the likely sources of the service sector's high relative labor productivity, while the high level of output per worker in industry net of manufacturing reflects the dominance of natural resources, even in countries not classified as resource rich.

A recent paper by McMillan and Rodrik (2011) suggests that structural change in Africa since 1990 has in fact worked against the creation of good jobs. By decomposing labor productivity growth into within sector and across sector – structural change – components,

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<sup>3</sup>China (2000), India (2007), Indonesia (2004), Korea (1968), Malaysia (1968), Philippines (1976), and Thailand (1987).

McMillan and Rodrik show that since 1990, Africa has experienced a relative shift in the composition of employment toward sectors that create too few high productivity jobs. In short structural change in Africa has *reduced* overall productivity growth (Table 3.2).

This pattern of “perverse structural change”, which has also taken place in Latin America, is consistent with evidence from labor market studies that rapid growth has created few formal sector jobs and that there has been an increase in the relative size of the informal sector. That in itself is disturbing. Simply put, new workers in Africa – especially the young – are increasingly moving from higher productivity to lower productivity employment. As disturbing: cross country evidence further suggests that this pattern of growth reducing structural change is associated with an increase in poverty (Page, 2011).

### **Structural change, industry and the private sector**

Africa’s slow pace of structural change mainly reflects a failure of its economies to industrialize. Manufacturing has been the sector most closely associated with the process of structural change. It is a high value added per worker sector into which labor can flow. Changes in the global economy, however, make the tendency to associate good jobs with manufacturing potentially misleading in both analytical and policy terms. Falling transport and communications costs have created a class of economic activities in agriculture and services that more closely resemble manufacturing than the sectors to which they are assigned in economic statistics. Such “industries without smokestacks” require firm capabilities that differentiate them from traditional agriculture and services, and offer – especially for Africa – a complementary set of activities capable of generating good jobs.

In contrast with the rest of the developing world Africa has deindustrialized. Its share of global manufacturing production (excluding South Africa) fell from 0.4 percent in 1980 to 0.3 percent in 2005, and its share of world manufactured exports from 0.3 to 0.2 percent (UNIDO, 2009). Sub-Saharan Africa’s share of manufacturing in GDP is less than one half of the average for all developing countries, and in contrast with developing countries as a whole; it is *declining* (Page, 2012). Per capita manufactured exports are less than 10 per cent of the developing country average.

Domestic private investment has remained quite stable in Africa since 1990 at about 11 percent of GDP. This is well below the levels found in East Asia, especially during periods of

rapid structural change (Table 3.3). Since the 1990s, foreign direct investment (FDI) has moved disproportionately to Asia. The vast majority of this FDI has been in manufacturing and infrastructure, driving the structural transformation of Asia's low income economies (Jacquet and Kline, 2005). Africa has also experienced a modest increase in FDI, particularly since 2000. Indeed, the region has attracted about the same share of FDI in GDP as Asia and developing countries as a whole over the past ten years, but that investment has remained almost wholly in mining and minerals (World Bank, 2010). Only about three percent of global FDI has gone to infrastructure financing in Africa and an even smaller percentage to manufacturing.

### **The drivers of industrial location**

Africa's structural transformation challenge is, therefore, primarily one of increasing both foreign and domestic private investment in industry – with and without smokestacks. To do so Africa needs to reenter the global industrial economy. Global industry, however, has undergone major changes over the past quarter century, driven by three phenomena: trade in tasks, agglomeration, and firm capabilities. Together these largely determine where investors will choose to locate.

#### ***Trade in tasks***

In some manufacturing activities the production process can be decomposed into a series of steps, or tasks. As transport and coordination costs have fallen, it has become efficient for the production of different tasks to be located in different countries, each working on a different step. Task based production has expanded dramatically in the past 20 years (UNIDO, 2009). Trade in tasks represents a potential lifeline for late industrializers: it is easier to master a single stage of the production process than to develop all of the capabilities needed for vertically integrated production. Vietnam is the latest Asian success story to begin its industrialization process with end-stage assembly. But, success is by no means assured. Task based exports are highly concentrated in advanced country markets and very footloose. As the experience of Lesotho and Swaziland demonstrate, investors continuously seek new locations in response to changing costs and incentives.

#### ***Firm Capabilities***

Often the critical constraints to industrialization are not technical. Rather they are complex and inter-related bodies of knowledge and patterns of behavior (Nelson and Winter, 1982). In most industries productivity and quality depend on a set of interlocking elements of tacit knowledge or working practices possessed jointly by the individuals who comprise the firm's workforce. These "firm capabilities" are the know-how or working practices that are used either in the course of production or in developing a new generation of products (Sutton, 2005). Firms in the global industrial marketplace are competing in capabilities, and the location of industry therefore depends in part on how well economies acquire and diffuse capabilities.

### ***Industrial agglomeration***

Manufacturing and service industries tend to concentrate in geographical areas driven by common needs for inputs and access to markets, knowledge flows, and specialized skills (Fujita, Krugman, and Venables, 1990). There is by now a fairly well developed empirical literature that demonstrates that agglomeration externalities are an important source of higher productivity in firms (UNIDO, 2009). Because of the productivity boost that agglomerations provide, countries with existing concentrations of industry have an in-built advantage. Starting a new industrial location is a form of collective action problem. If a critical mass of firms can be persuaded to locate in a new area, they will realize productivity gains, but no single firm has the incentive to locate in a new area in the absence of others.

### **Breaking in, moving up and diversifying**

Africa faces at least three industrialization challenges, shaped by the way in which the income levels and factor endowments of its economies interact with the global determinants of industrial location. For the region's labor abundant, lower income economies the challenge of breaking into global markets in task based production is likely to be the most urgent. Middle income countries such as South Africa and Tunisia face the challenge of "moving up" in terms of export and product sophistication. The natural resource exporters – such as Angola and Nigeria – confront the challenge diversifying out of natural resources.

### ***Breaking In***

Today, new entrants to manufacturing are competing with East Asia, which now plays the role previously played by "the North". Asia has the scale and agglomeration economies

which make it competitive against new entrants, despite rising production costs. One scenario, which cannot be wholly dismissed, is that the differences in wages between East Asia and even Africa's labor abundant economies may not be sufficiently large to offset East Asia's productivity advantage.

There are two reasons to think that the future is less bleak than this suggests:

- *Rising costs* One source of rising costs will be increasing real wages. Further, China has only a limited number of coastal cities. As these expand, they are likely to encounter diseconomies of congestion.
- *Growing domestic demand* Since the global financial crisis Asia's established industrial economies – China and India included – have introduced domestic policies intended to reduce their dependence on exports.

The emerging role of agro-industry and tradable services – including tourism – also offers scope for industrialization based on “natural resources” that are location specific to Africa.

### ***Moving Up***

For middle income countries the industrial development challenge is somewhat different. “Pressure in the middle” – mainly from East Asia - has prevented middle income African countries from making the transition from lower to higher sophistication manufacturing, limiting output and employment growth (UNIDO, 2009). The good news is that pressure in the middle is not uniform. Time is emerging as a critical factor shaping the global distribution of trade in tasks. In industries subject to short cycle times or uncertain demand – such as fashion or consumer electronics – firms are driven to locate close to consumers and/or suppliers. This may open up space for higher wage economies with close proximity to Emerging Asia, Europe and North America to become part of the global trend toward “reverse outsourcing”, as industries locate closer to customers. Indeed, proximity was a key component in Tunisia's success as a middle income manufactured exporter.

### ***Diversifying***

For an oil-dependent economy such as Angola or Nigeria resource rents and foreign financial returns may fail to generate sufficient jobs to employ growing populations. For this reason Africa's oil-rich economies face a challenge of diversification into non- resource based activities. Diversification is made difficult by the relative price changes that occur in a resource

exporting economy. Real exchange rate appreciation limits the ability of firms to enter new tradable goods sectors. This is the Dutch disease. Dutch disease cannot be avoided, but it can be addressed by public policy. Tradable goods production will expand or contract according to whether it is internationally competitive. This depends not only on the exchange rate but also on the investments and institutional innovations that governments make to enhance competitiveness.

#### **4. POLICIES FOR JOB CREATION**

That Africa has an employment problem – including a problem of youth employment – is clear. The root cause of the problem is also clear: the region's economies, despite good growth, have failed to create enough jobs capable of paying good wages to absorb a rapidly growing labor force. But, the ways in which the employment problem manifests itself through the labor market varies greatly across countries, and the policy solutions to the problem need to be equally varied.

##### **New approaches to jobs and skills**

Industrialization can boost formal job creation through faster, more labor intensive growth. But major changes in labor markets and in the education system will also be needed to increase the employment intensity of growth in the formal economy. In the short run a number of interventions can be undertaken to improve the employment prospects of new labor force entrants. In the medium term improving the prospects for good jobs will depend on changing the existing institutional arrangements that raise the costs to formal sector employers of hiring workers and on strengthening labor force skills.

##### ***Addressing open unemployment***

For countries such as Botswana, South Africa and those in North Africa pressures to address open unemployment – especially among the young - will remain high. Governments can target young workers in employment-intensive activities, such as tourism and construction, with programs that offer cash for work. Governments can also experiment with increasing budget allocations to labor intensive public works. Public works programs provide good opportunities

for young workers, particularly rural residents and people with low skills, to acquire initial work experience. In Senegal the Agence d'Exécution des Travaux d'Intérêt Public (AGETIP) trains and employs unemployed youth, who work on public infrastructure projects (roads, buildings, sanitation systems). The youth are hired only on a temporary basis, but the training and work experience helps them obtain more permanent employment (World Bank, 2008). Public works projects also allow good targeting for other interventions – such as training and placement services – that may increase the likelihood of finding better employment opportunities beyond the program.

In a number of middle income countries there are government funded active labor market programs, but they reach a very small number of beneficiaries, mostly tertiary educated young urban males, and there is little evidence of their effectiveness. Temporary programs that provide public sector employment for the more educated are likely to perpetuate the attitude that the public sector bears the primary responsibility for creating good jobs. Instead, programs can be developed to temporarily subsidize the recruitment and training costs of first time job seekers in the private sector. Argentina and Chile for example have successfully designed and implemented programs to provide semiskilled training to large numbers of young job seekers. To provide incentives for skill formation governments might experiment with eligibility criteria that reward specific skills. For example tests for language skills could be used to screen applicants for employment programs in tourism.

### ***Helping the young find better jobs***

One way to deal with the early transition to work would be to put in place programs to ease the income constraints of poor families, allowing students to remain in school. In Ethiopia for example school attendance rose after a flexible school calendar that took into account the agriculture cycle was introduced in rural areas. Conditional cash transfers -- which transfer funds to poor families as long as their children attend school or after-school programs - have been shown to increase school enrollment and reduce child labor in Brazil and Mexico (Raju 2006).

Active labor market policies, such as job search assistance, employability training, public support for apprenticeship and internship programs, and on-the-job training subsidies can be used to increase the employability of young workers. The NOW project in Jordan for example

uses vouchers to increase employment for young women. Governments can also provide tax incentives to firms to recruit and retain young workers.

Job training programs for early labor force entrants are more likely to be successful if they are part of a package that includes basic education, employment services, and social services. A recent review of 19 training programs targeting youth shows that in the absence of such a package, training programs rarely improve the employment and earnings of young participants (World Bank, 2008). Well-targeted and comprehensive training programs, such as the Joven's program in Argentina, Chile, and Peru, have been successful in reaching the most vulnerable youth and improving their earnings and employment (World Bank 2006).

A more speculative area for public action would be to develop entrepreneurship initiatives targeted at the young. Young entrepreneurs face several constraints to creating a venture and making it grow. Some lack entrepreneurial skills, others lack access to information and networks, and almost all have difficulty accessing credit. Some type of prize competition that provides a small start-up grant to applicants with a viable business plan might serve as a complement to cash for work programs – especially among the more educated – and as a substitute for existing public employment programs. Programs that provide access to networks and information have been launched in some countries in Latin America and seem promising (for example, Endeavor in Argentina, Brazil, Mexico, and Uruguay). These programs would need to be time bound, in the first instance to, say three years, and rigorously evaluated to prevent them from degenerating into permanent transfer programs.

### ***Building relevant skills***

Education reforms are essential to improving the skills and problem solving capacity of workers and to restoring public confidence in social mobility and inter-generational equity. Perhaps the most urgent reform is to increase the emphasis on post-primary education. Africa faces a large and growing gap with other developing regions in both secondary and tertiary enrollments. The gross enrolment ratio at secondary level in the region is 35 percent. At the tertiary level it is just 6 percent (Figure 4.1). While East Asian countries increased secondary enrollment rates by 21 percentage points and tertiary enrollment rates by 13 percentage points between 1990 and 2005, Africa raised its secondary rates by seven percentage points and its tertiary rates by only one percentage point.

Real expenditure on tertiary education in Africa fell by about 28 percent between 1990 and 2002, and expenditure per pupil declined by nearly 80 percent. Employer surveys report that African tertiary graduates are weak in problem solving, business understanding, computer use, and communication skills (World Bank, 2007). Increasing education budgets for post-primary education will not be popular with Africa's development partners, who remain transfixed by the MDG goal of universal primary education, but it will be essential to address the employment problem.

The quality of teachers and instruction in public schools needs to be significantly raised. In several countries less than half of women 15–24 with some primary schooling can read a simple sentence. In Namibia more than 80 percent of children finish primary school, but less than 20 percent master the material covered (World Bank, 2008). Teachers need to receive adequate compensation and be monitored and evaluated. In the medium term governments will need to introduce pay for performance schemes into the primary and secondary education systems and revise examinations to weaken the link between rote learning and success.

In the longer term the education system needs to be restructured to teach the skills needed for the global marketplace. This argues for changes in curriculum and in teaching practices that are likely to be resisted by incumbent teachers. It also argues for changes in vocational and technical education including, especially, increased provision by the private sector. In the formal sector, Africa's skill development schemes continue to be supply-driven and disconnected from the demands of the labor market (Adams 2006). A more market-oriented approach to training that allows employers to shape the training they need with financial support from the government is needed. This could be done through the use of training vouchers that can be redeemed with accredited private sector training providers or through industry-led training centers. In Mauritius for example the Industrial Vocational Training Board has split the financing and provision of training and adopted a competitive model for procuring training services. Building program evaluation into such initiatives is essential.

### ***Reform of labor legislation and institutions***

In some countries labor regulations that set minimum wages, determine social insurance contributions and protect job security will need to be changed. For example firm level surveys indicate that the single greatest impediment to the more rapid growth of outward-oriented

manufacturing in South Africa is the high level of real wages relative to productivity levels. While other constraints to manufacturing growth are potentially important - for example lack of basic education and skills in the labor force – they do not appear to be binding. Labor market regulation – in particular the “extension provision” which requires collective bargaining agreements to be extended to all firms in an industry, regardless of size - is inhibiting investment and growth.

In many countries procedures to lay-off workers for economic or technological reasons are complex and seldom used. Social insurance (unemployment and health insurance) reforms may also be required. Separating social insurance from formal job status and social insurance contributions from formal sector wages should be an important long term goal. But, regulatory reform is not a magic bullet. Most econometric evidence, suggests that even complete deregulation of the labor market would not be sufficient to absorb all of the unemployed into the formal sector without more robust growth.

### **Developing the demand side**

Since the 1990s private sector development efforts in Africa have focused on improving the “investment climate” – the regulatory, institutional and physical environment within which firms operate. The high costs of doing business in Africa have been well documented in a decade of comparative research reports sponsored by the World Bank and the World Economic Forum.<sup>4</sup> Overall, these reports conclude that the cost of doing business in Africa is 20–40 percent above that for other developing regions. Investment climate reforms are therefore central to the success of any strategy to create jobs.

### ***Regulatory reform***

Surveys of manufacturing firms highlight a number of areas in which regulatory or administrative burdens impose cost penalties on African firms (Clarke, 2005; Yoshino, 2008, Farole, 2011). In 2011 Africa’s average rank (moving from 1 as the best to 183 as the worst) was 137 in the World Bank’s *Doing Business* indicators. Africa needs to do better at doing business. However, the way in which some donors – notably the World Bank – have focused their policy dialogue with individual countries in Africa on the narrow range of regulatory issues embodied

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<sup>4</sup>See for example the *Doing Business* surveys of the World Bank or the *World Competitiveness Report* of the World Economic Forum.

*Doing Business* has diverted both the international community and African policy makers from deeper diagnosis of the constraints to faster industrial growth.

*Doing Business* was not designed to be used as a country-level diagnostic tool; it is a “league table” or cross-country benchmarking exercise. Moreover, seven of its nine indicators “presume that lessening regulation is always desirable” (World Bank, 2008; p. xv). A more informed analysis of the regulatory constraints to private investment is urgently needed: one based on structured feedback from the private sector.

### ***Neglected priorities: infrastructure and skills***

Firm level studies in Africa highlight infrastructure deficiencies as a significant constraint. Efficient African enterprises have factory floor costs comparable to Chinese and Indian firms for some product lines, such as garments. They become less competitive because of higher indirect business costs, many of which are attributable to poor infrastructure (Eifert, Gelb, and Ramachandran, 2005). Sub-Saharan Africa lags at least 20 percentage points behind the average for low income countries on almost all major infrastructure measures.<sup>5</sup> In addition the quality of service is low, supplies are unreliable, and disruptions are frequent and unpredictable.

The skills gap poses a major threat to industrial development. Recent cross country empirical research indicates that there is a strong link between export sophistication and the percentage of the labor force that has completed post-primary schooling (World Bank, 2007). There is also evidence to suggest that enterprises managed by university graduates in Africa have a higher propensity to export (Wood and Jordan, 2002; Clarke, 2005) and that firms owned by university educated indigenous entrepreneurs grow faster (Ramachandran and Shah, 2007).

## **5. A STRATEGY FOR INDUSTRIAL DEVELOPMENT**

Creating a dynamic and competitive private sector is a major step toward generating growth and jobs, but private investment will need to flow into high value added activities. As the successful experience of East Asia demonstrates, once a critical minimum threshold is crossed, industrial growth can be explosive. But industry is lumpy in size, space and time, and threshold effects are important. Below the threshold marginal changes in policies and investments – the

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<sup>5</sup>An important exception is the penetration of fixed-line and mobile telephones, where Sub-Saharan Africa leads low-income countries by as much as 13 percent. The largest gaps are for rural roads (29 percentage points) and electricity (21 percentage points).

centerpiece of investment climate reform – may not yield results. Africa’s economies need an industrialization strategy to complement efforts to reform labor markets and the investment climate.

### **Three strategic initiatives**

Appropriate responses to the region’s industrialization challenges will vary across countries. Three important strategic initiatives, however, appear to offer some promise. These are: pushing exports, building capabilities, and supporting industrial clusters.

#### ***Pushing exports***

For the vast majority of Africa’s economies the export market represents the only option for rapid growth of manufacturing, agro industry and high value added services. Breaking into export markets in a world of task based production and agglomeration will require an “export push”: a concerted set of public investments, policy and institutional reforms focused on increasing the share of non-traditional exports in GDP.

The distinguishing feature of an export push is that it must be a “whole of government” initiative. Macroeconomic policy must play a key role. While it is unlikely that many African economies will find it possible to undertake exchange rate protection of the tradables sector — although it would be good to encourage policy debate within governments on the pros and cons of such a policy — coherent macro policies designed to prevent excessive appreciation are essential. Public expenditure programs need to be evaluated and prioritized in terms of their contribution to achieving global competitiveness, and the structure of incentives needs to be tilted to the extent possible in the direction of export promotion, through institutional, regulatory and trade policy reforms.

Improving trade logistics is vital. Trade in tasks has greatly increased the importance of “beyond the border” constraints to trade. Because new entrants to task based production tend to specialize in the final stages of the value chain, “trade friction costs”—the implicit tax imposed by poor trade logistics – are amplified. African countries have an average ranking of 121 out of 155 countries in the recently compiled World Bank (2010) Trade Logistics Index. These constraints directly reduce Africa’s ability to compete. In China, indirect costs – many of them

attributable to trade logistics - are about 8 percent of total costs; in Africa they are 18–35 percent (Eifert, Gelb, and Ramachandran, 2005).

### ***Attracting and building capabilities***

The initial introduction of a higher level of capability to a firm or group of firms is often a result of Foreign Direct Investment (FDI). Policies and institutions for attracting FDI are therefore a key tool in capability building. The work of Ireland's Industrial Development Authority in the 1960s provided an institutional model for attracting and keeping FDI that has become international best practice over the past twenty years. Approaches similar to that used in Ireland have been central to FDI policy in a wide range of countries from Jordan to Singapore; they are not yet found in Africa.

In some international markets – apparel and agro-industry for example – exchanges of information between suppliers and buyers with a reputation for high quality are well developed and add to the capabilities of supplying firms. For this reason an export push is strongly complementary to the process of acquiring capabilities. Demanding buyers and repeated relationships are characteristic of many global markets in industry and promote learning by exporting.

Transmission of capabilities to other firms within an economy most often takes place through vertical supply chain relationships. In many industries there is a close and continuing contractual relationship between buyer and supplier which often involves a two way movement of technical and engineering personnel between their respective plants. Removing obstacles to the formation of vertical value chain relationships is therefore a critical task.

### ***Supporting agglomerations***

Spatial industrial policies offer a third, complementary, area of public action. Case studies indicate that governments can foster industrial agglomerations by concentrating investment in high quality institutions, social services, and infrastructure in a limited physical area – such as a special economic zone (SEZ). Spatial policies may also play a role in the transfer and diffusion of firm capabilities. High capability firms tend to locate among other high capability firms (Krugman and Venables, 1995).

To date Africa's experience with spatial industrial policy has been largely unsuccessful. A recent review of the performance of SEZs in Ghana, Kenya, Lesotho, Nigeria, Senegal, and Tanzania concludes that most African SEZs have failed to reach the critical threshold levels of physical, institutional and human capital needed to attract global investors (Farole, 2011). For example, firms in non-African SEZs had an average downtime from electricity outages of only 4 hours per month, compared with a reported average downtime of 44 hours per month in African EPZs. A similar pattern is observed in customs clearance where clearance times in African zones are about double that of their non-African counterparts. Clearly, the first order of business is to upgrade the performance of Africa's EPZs to international standards.

### **Fitting actions to objectives**

Because of the diversity of industrialization challenges in Africa, there is no single strategy for job creation through industrialization. The elements above will need to be combined in different ways to meet each country's industrialization objectives. Table 5.1 makes a stab at a typology of approaches to industrial development.

For labor abundant, low income economies – especially those on the coast - the first priority should be to develop an export push by tilting incentives – including the exchange rate-toward exporters. World class export processing zones and aggressive FDI policies would be necessary complements. In middle income countries, such as Mauritius and South Africa, a critical objective should be to develop programs to enhance the acquisition and transfer of capabilities. This will require a more targeted FDI policy and a more open architecture in special economic zones to promote the creation of domestic vertical value chains linked to the export sector. For natural resources exporters (Angola, Botswana, Nigeria) the obvious challenge is to build diversification s into resource revenue management programs.

### **Linking employment and industrial policies**

There is also scope for explicitly linking employment and industrial policies. For many countries – South Africa among them – economy-wide regulatory reforms of the labor market present a daunting challenge. Others face difficulties with educational reforms. By concentrating education, institutional and regulatory reforms in a Special Economic Zone, it may be possible to experiment on a small scale with policy reforms and institutional innovations. Those that are demonstrably successful can then be scaled up, perhaps in the face of less political opposition.

Youth in particular tend to lack mobility and the resources required to engage in active job search, or to relocate in order to take advantage of job opportunities elsewhere. Consequently, they may restrict job search to opportunities available close to where they reside. Strengthened programs to assist job search could in the first instance be focused on emerging opportunities in EPZs.

## **6. CONCLUSIONS**

Africa's employment problem is a deficiency of good jobs. Rapid population growth has resulted in rapid growth of the labor force and increasing pressures on the job market, especially for the young. But because the region's economies – and therefore its labor markets – are diverse the ways in which this pressure is felt also differs across countries. In some, mainly those with higher incomes and larger formal sectors, it appears as open unemployment of the young. In many others, including some of the region's fastest growing economies, it appears as low unemployment coupled with increasing informality. In all cases the solution to the employment problem cannot be found in employment policies alone.

Africa faces a significant structural deficit – the result of two and a half decades of deindustrialization and increasing dependence on natural resources. Today Africa's manufacturing sector is smaller, less diversified and less sophisticated than it was in the decade following independence. Agro-industry and tradable services are still in their infancy. As industry lost ground, labor has moved from higher to lower productivity employment. Without an acceleration of structural change the region's recent growth turn around runs the risk of not sustaining job creation.

For countries with high open youth unemployment, such as Botswana, South Africa and those in North Africa, governments can target young workers with programs that offer cash for work in employment intensive activities. Governments might also experiment with increasing budget allocations to labor intensive public works.

Across the region active labor market policies, such as job search assistance, employability training, public support for apprenticeship and internship programs, and on-the-job training subsidies can be used to increase the employability of young workers. A more speculative area for public action would be to develop entrepreneurship initiatives targeted at the

young. In the longer run labor regulations that set minimum wages, determine social insurance contributions and protect job security may need to be changed.

Education reforms are essential to improving the skills and problem solving capacity of Africa's workers. Perhaps the most urgent reform is to increase the emphasis on post primary education. In the longer term the education system needs to be restructured to build the skills needed to compete globally. This argues for changes in curriculum and in teaching practices. It also argues for changes in vocational and technical education including increased provision by the private sector.

Meeting the challenge of industrialization will need new thinking. While investment climate reforms are essential, they need to be reprioritized and refocused. Urgent action is needed to address Africa's growing infrastructure and skills gap with the rest of the world. These are long gestation investments that must not be postponed.

For most African countries investment climate reforms alone may not be enough to overcome the advantages of the world's existing industrial locations. A strategy for industrial development will be needed. Three drivers of industrial location – trade in tasks, firm capabilities and agglomeration – point the direction such a strategy should take. Governments will need to focus on three interrelated objectives: creating an export push, building firm capabilities, and supporting agglomerations. The strategy chosen, however, will vary with each country's income level, resource endowment, and economic objectives.

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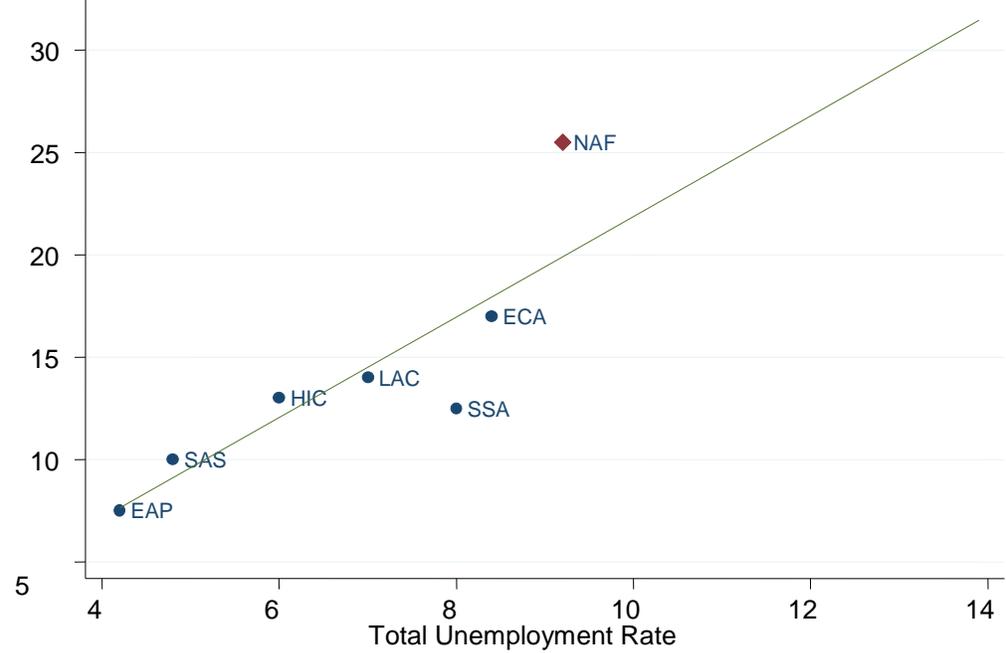
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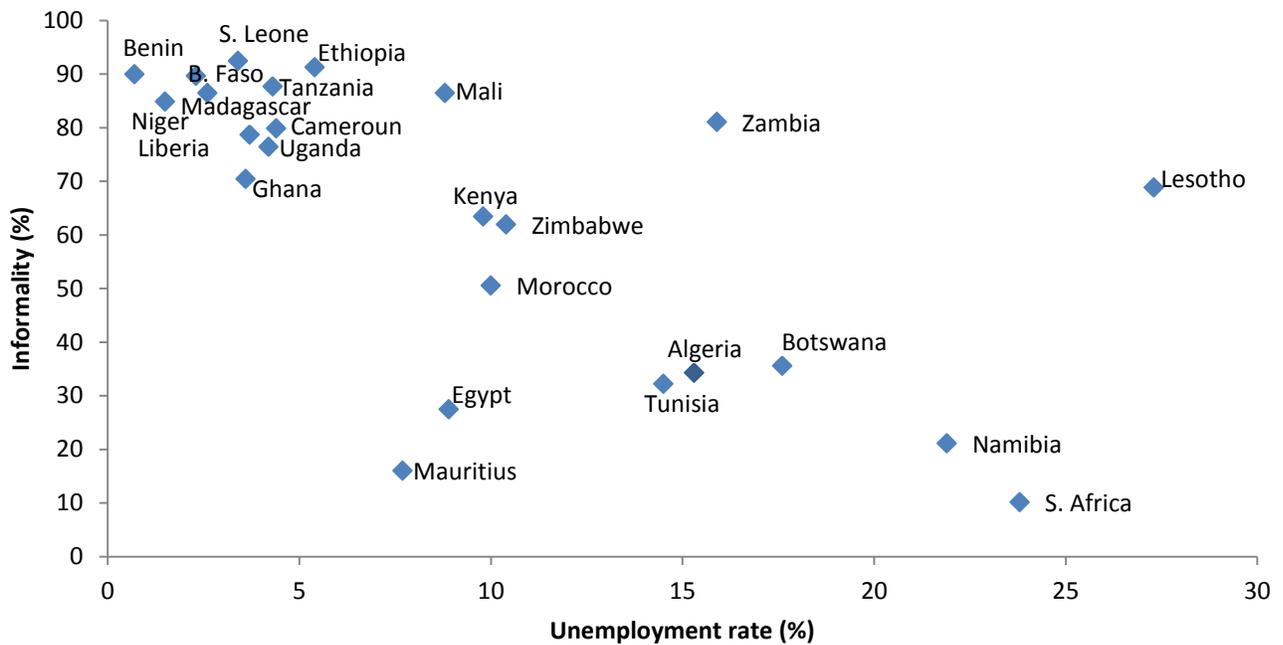
**Fig 2.1 Total and Youth Unemployment 2008**

Youth Unemployment Rate



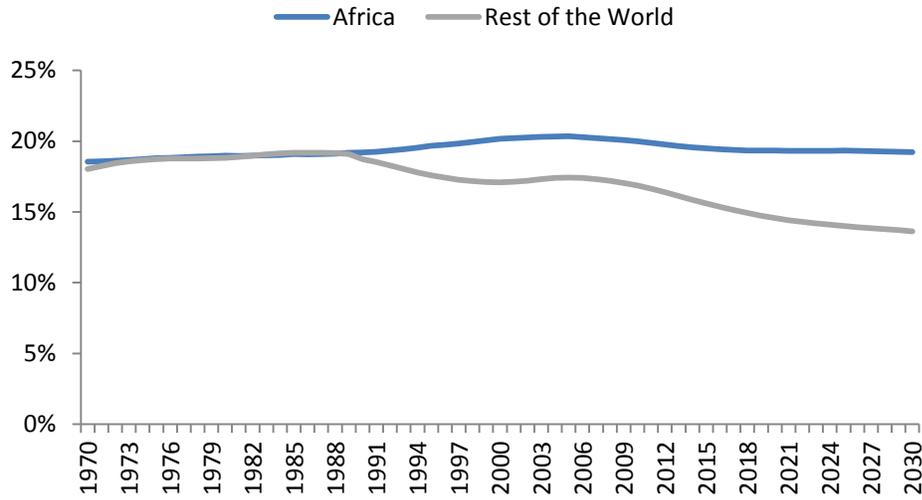
Source: ILO (2011)

**Figure 2.2: Unemployment and Informality**



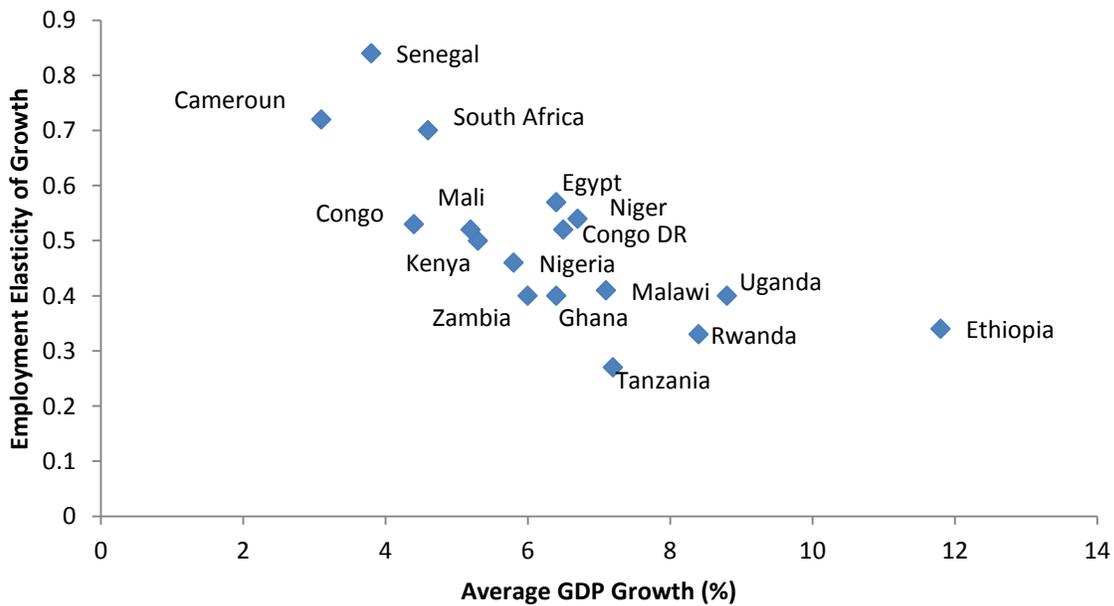
Source: AfDB (2012)

**Figure 2.3: Young people (15-24) as a proportion of the population, 1970-2030**



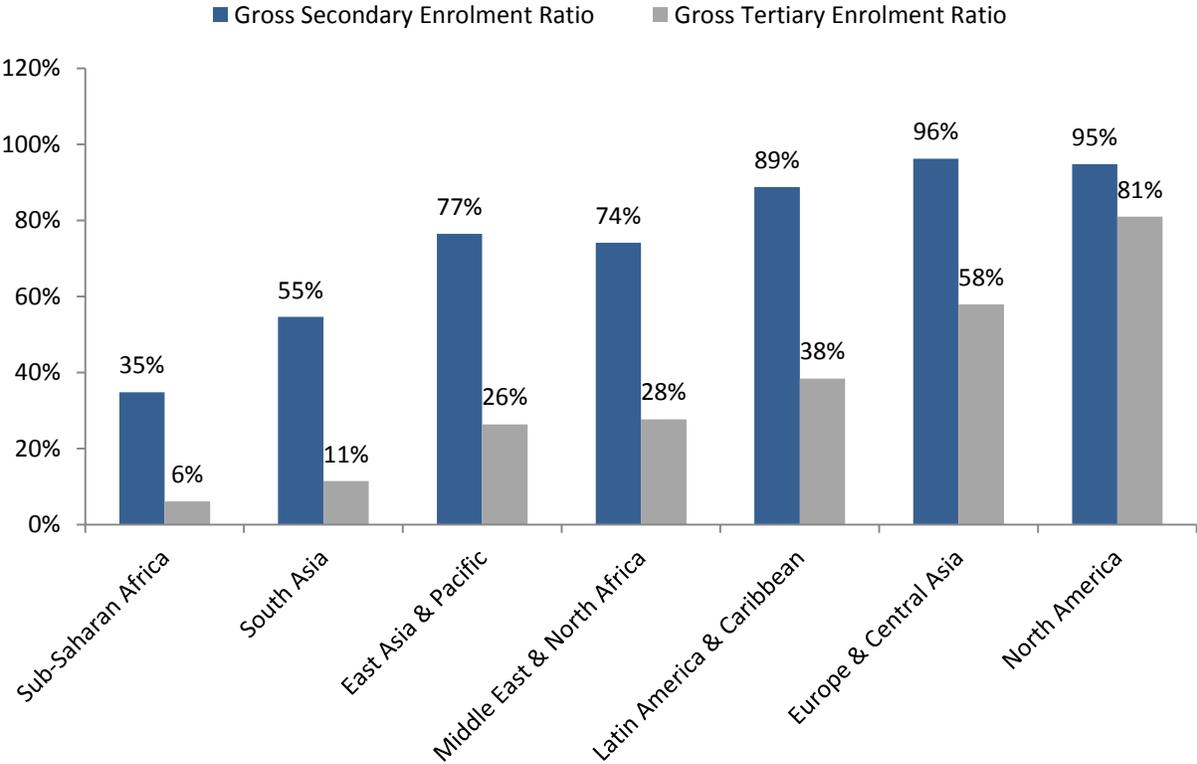
**Source:** AfDB calculations based on United Nations, Department of Economic and Social Affairs, Population Division (2011). World Population Prospects: The 2010 Revision, CD-ROM Edition.

**Figure 2.4: Growth Elasticity of Employment**



**Source:** AfDB (2012)

**Figure 4.1: Secondary and Tertiary Enrollment Rates by Region, 2010**



Source: World Development Indicators 2011

**Table 2.1: Youth unemployment rates and youth-to-adult unemployment ratios, by region**

Indicator	Region	2000	2004	2005	2006	2007	2008	2009
Unemployment rate (%)	SSA	13.8	13.2	13.1	12.2	12.2	12.1	12.1
	N. Africa	29.5	26	26.7	24.4	24.3	22.6	23.4
	World	12.8	13	12.9	12.4	11.8	11.9	12.8
Youth-to-adult unemployment ratio	SSA	2.0	2.0	2.0	1.9	2.0	2.0	1.9
	N. Africa	3.4	3.6	4.0	3.9	4.0	3.8	3.8
	World	2.8	2.8	2.8	2.9	2.5	2.8	2.7

Source: *Global Employment Trends*, ILO (2011)

**Table 2.2 Youth Employment Status in Selected African Countries**

	Employment Status				TOTAL
	Wage Employment	Self-employment	Contributing family work	Other	
Botswana	62.8	7.2	29.9	0.1	100
Congo	20.1	55.3	17.2	7.5	100
Congo DR	10.2	49.1	36.3	4.4	100
Egypt	64.9	4.1	31		100
Ethiopia	17.9	24.1	58		100
Ghana	13.3	26.2	50.4	10.2	100
Malawi	14.9	18.9	56	10.3	100
Mali	5.4	41.6	53		100
Nigeria	72.6	17.0	8.5	1.9	100
Rwanda	27.7	16.8	55.5		100
Senegal	12.3	41.7	46.3		100
South Africa	84.8	7.1	5.9	2.1	100
Tanzania	8.0	9.0	20.2	62.8	100
Uganda	14.0	20.9	63.6	1.6	100

Source: AfDB (2012)

**Table 3.1: Africa's Structural Deficit, 2005**

	VASH AGR	VASH IND	VASH MFG	VASH SER		LSH AGR	LSH IND	LSH MFG	LSH SER		REL PROD AGR	REL PROD IND	REL PROD MFG	REL PROD SER
BMK MIC	21.7	12.2	21.9	44.2		45.2	6.6	11.6	36.6		0.48	1.85	1.89	1.21
AFR LIC	27.8	11.8	11.1	49.3		63.1	5.1	6.6	25.2		0.44	2.31	1.68	1.96
AFR MIC	4.8	10.9	17.1	67.2		8.6	11.9	16.8	62.7		0.56	0.92	1.02	1.07
AFR RES RICH	17.8	29.6	8.3	21.1		45.4	4.8	6.5	43.4		0.39	6.17	1.28	0.49

**Notes:** Africa low income sample ETH, MWI, GHA, KEN, MAD, MOZ, SEN, TZA

Africa middle income sample MUS, ZAF

Africa resource rich economies BOT, LES, NGA, NMB, ZAF

**Sources:** McMillan and Rodrik (2011) data base, World Bank WDI database,. Author's calculations

**Table 3.2: Decomposition of Productivity Growth, 1990-2005**

	Labor productivity growth	Due to within sector productivity growth	Due to structural change
ASIA	3.87%	3.31%	0.57%
HIGH INCOME	1.46%	1.54%	-0.09%
LAC	1.35%	2.24%	-0.88%
AFRICA	0.86%	2.13%	-1.27%

**Source:** McMillan and Rodrik (2011)

**Table 3.3: Private Investment as a Share of GDP 1990-2009**

	1990-94	1995-99	2000-04	2005-09
Africa LIC	10.2	11.2	11.1	11.8
Africa MIC	14.6	14.5	13.8	15.8
East Asia	24.9	19.9	12.4	16.8
Low Income Countries	10.0	11.5	12.9	15.4
All Developing Countries	13.7	14.5	14.0	16.6

**Note:** Entries are 5 year averages in percentages.

**Source:** World Bank World Development Indicators,

World Bank national accounts data, and OECD National Accounts data files

**Table 5.1: A Typology of Industrialization Challenges and Responses**

	<b>Countries Breaking In</b>	<b>Countries Moving Up</b>	<b>Countries Diversifying</b>
<b>Country Examples</b>	Egypt, Ghana, Kenya, Senegal, Tanzania	Mauritius, South Africa, Tunisia	Angola, Nigeria
<b>Industrialization Challenge</b>	Lower end task based trade and agro-industry	Mastering more sophisticated products and tasks	Finding niche markets for high value added manufacturing and services
<b>Investment Climate Reforms</b>	Regulation; Trade related infrastructure; skills	Regulation; infrastructure; advanced skills	Regulation; infrastructure; skills
<b>Strategic Components</b>	Export Push; EPZs; Aggressive FDI policy	Spatial policies linking skills, knowledge and capabilities; FDI; Capability building initiatives	Linking industrialization to the resource; Spatial policies linking skills, knowledge and capabilities; Production knowledge initiatives

Source: see text

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