

Part 1: Economic Growth, Structural Change and Social Development

CHAPTER

2

**STRUCTURAL CHANGE
AND SOCIAL DEVELOPMENT**

To ensure that robust and resilient economic performance is commensurate with sustained and inclusive development, Africa must adopt social development strategies that are consistent with the expansion of industrial and modern sectors.

Industrialization is a key catalyst for diversifying the production structure of African economies and creating job opportunities for an ever-growing workforce.

Sustained economic growth and substantial poverty reduction in Africa require the development of productive capacities in such a way that the working-age population becomes more fully and productively employed. National productive capacities develop through the interrelated processes of capital accumulation and technological progress, which in turn lead to structural change.

Social development is both an output and input into a successful structural transformation agenda. A healthy and educated workforce equipped with high-quality and relevant skills requires an alignment of industrial and social policies that foster economic diversification, create employment opportunities and reduce poverty.

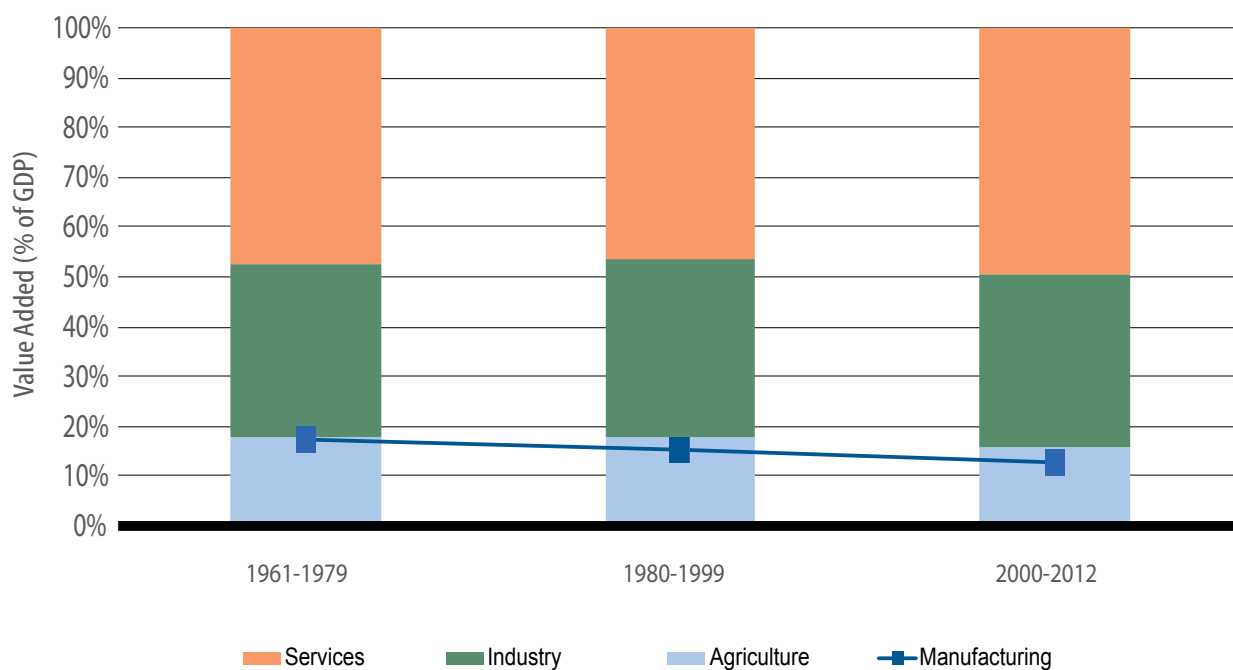
The demographic dynamics and urbanization processes currently in force in Africa present a mixed picture of challenges and opportunities, and the factoring of these social phenomena in a structural transformation agenda is important. The rapid urbanization in the continent should be driven by the development of industrialization and competent service sector delivery reversing past trends.

Employment to population and labour force participation are on the rise in Africa and expected to continue increasing given the demographic growth currently prevailing. Informal employment

continues to form the largest proportion of employment opportunities, despite inadequate working conditions and social protection regimes. Structural change has been minimal since independence. Continent-wide, the composition of GDP by sector has changed little (figure 2.1). For example, the share of industry has remained almost constant at about 35 per cent of value added since the 1960s, and the contribution of manufacturing has actually decreased, resulting in de-industrialization. This is particularly pronounced in natural resource-rich countries where industry is often focused on mining-related activities, with few jobs and few industrial linkages to other sectors.

After the fall in growth in all sectors except agriculture during 1980–1999, since 2000 there has been a recovery in average growth for industry, though not to the level of the early post-independence years, with manufacturing being the slowest sector and services the fastest (table 2.1).

Industrialization is a key catalyst for diversifying the production structure of African economies and creating job opportunities for an ever-growing workforce

FIGURE 2.1: GDP COMPOSITION BY SECTOR, AFRICA, 1961–2012

Source: Calculations based on World Development Indicators (database).

TABLE 2.1: OVERALL AND SECTORAL GDP GROWTH (% PER YEAR)

Growth	1961–1979	1980–1999	2000–2012
GDP	4.9	2.4	4.9
Agriculture	3.3	3.3	3.6
Industry	6.1	1.5	5.2
Manufacturing	4.4	1.7	3.1
Services	4.5	3.0	5.6

Source: Calculations based on World Development Indicators (database), accessed November 2014.

GROWTH AND STRUCTURAL CHANGE UNDER SHIFTING POLICY PARADIGMS

African countries have followed a raft of economic policy paradigms since independence—reflecting the economic complexities and priorities of international financial institutions—often leading to policies loosely linked to African needs and unable to address their challenges. These strategies began with the initial phase of development planning (1960–1979), followed by structural adjustment programs (1980–1999) and the quasi-planning period (2000–present) (ECA, 2014).

Despite weaknesses, the post-independence years of development planning—planning which included import-substitution policies to support the development of local industries—helped African countries in their early stages. The sectoral share of agricultural value added in Africa decreased steadily, while the share of manufacturing and services followed an inverted U-shape, meaning an increase in value addition and employment at lower levels of growth with a decrease at higher levels (ECA, 2014)(figure 2.2). Africa did undergo structural change during the planning period of 1970–1979, but that change was limited by a lack of sound industrial foundation to meet growing internal demand, resulting in a limited contribution of manufacturing to transformation.

Structural adjustment programmes (SAPs) worsened the transformation process initiated during the planning period. Based on advice anchored in comparative advantage, SAPs led to a reallocation of employment from industry and services to agriculture and the informal sectors. Despite increases in GDP per capita associated with a decline in the value-added share in agriculture, the speed of this decline was less pronounced than in the earlier post-independence period. Similarly, manufacturing value added followed a skewed inverted U-shape, but the decline was less pronounced than during the planning period (ECA,

2014) (figure 2.3). Manufacturing's contribution to transformation was more limited than during the planning period.

Despite showing a decrease in the share of total employment, services saw their value-added share increase steadily, confirming that the layoffs due to privatization of state-owned enterprises increased the share of employment in agriculture and of value added in services (figure 2.4).

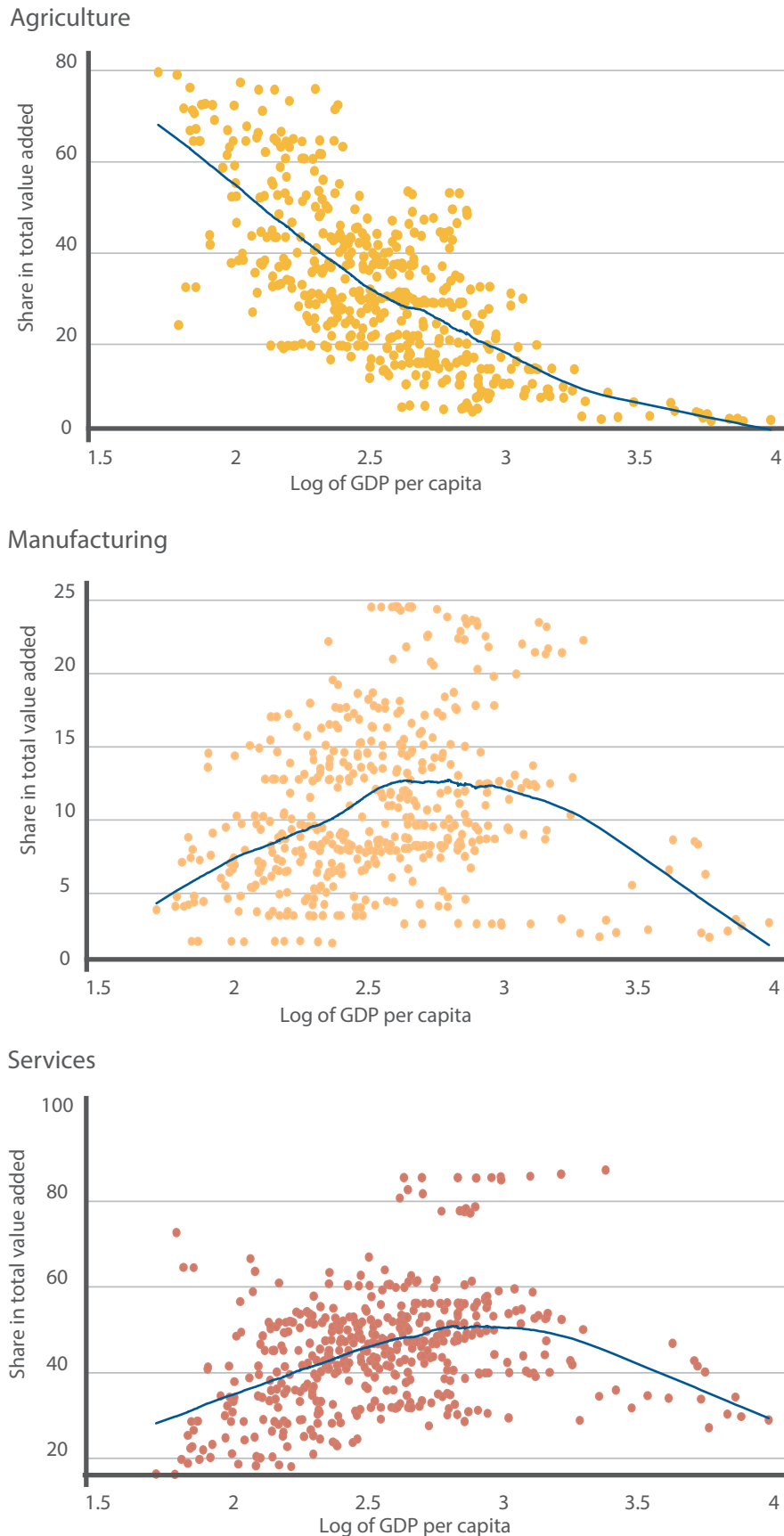
At the subregional level, the slowdown in industrial growth during the SAP period was particularly sharp in East and Southern Africa, while industrial growth in West Africa remained the most resilient.

Since 2000, the share of agricultural employment decreased with growth, while employment shares for industry and services picked up. The agricultural value-added share has continued falling while those of industry and services have continued to rise (figure 2.5). However, although employment opportunities in manufacturing rose steadily, their increase was slower than in the planning period (but faster than during the SAP period) (ECA 2014).

Subregionally, the recovery of overall growth after 2000 has been driven by accelerated industrial growth in East, North and West Africa, and by services in Central, East and West Africa (figures A2.1–A2.3 in Appendix 2). West Africa has contributed significantly to industrial growth on the continent in recent years, with annual growth of more than 8 per cent.

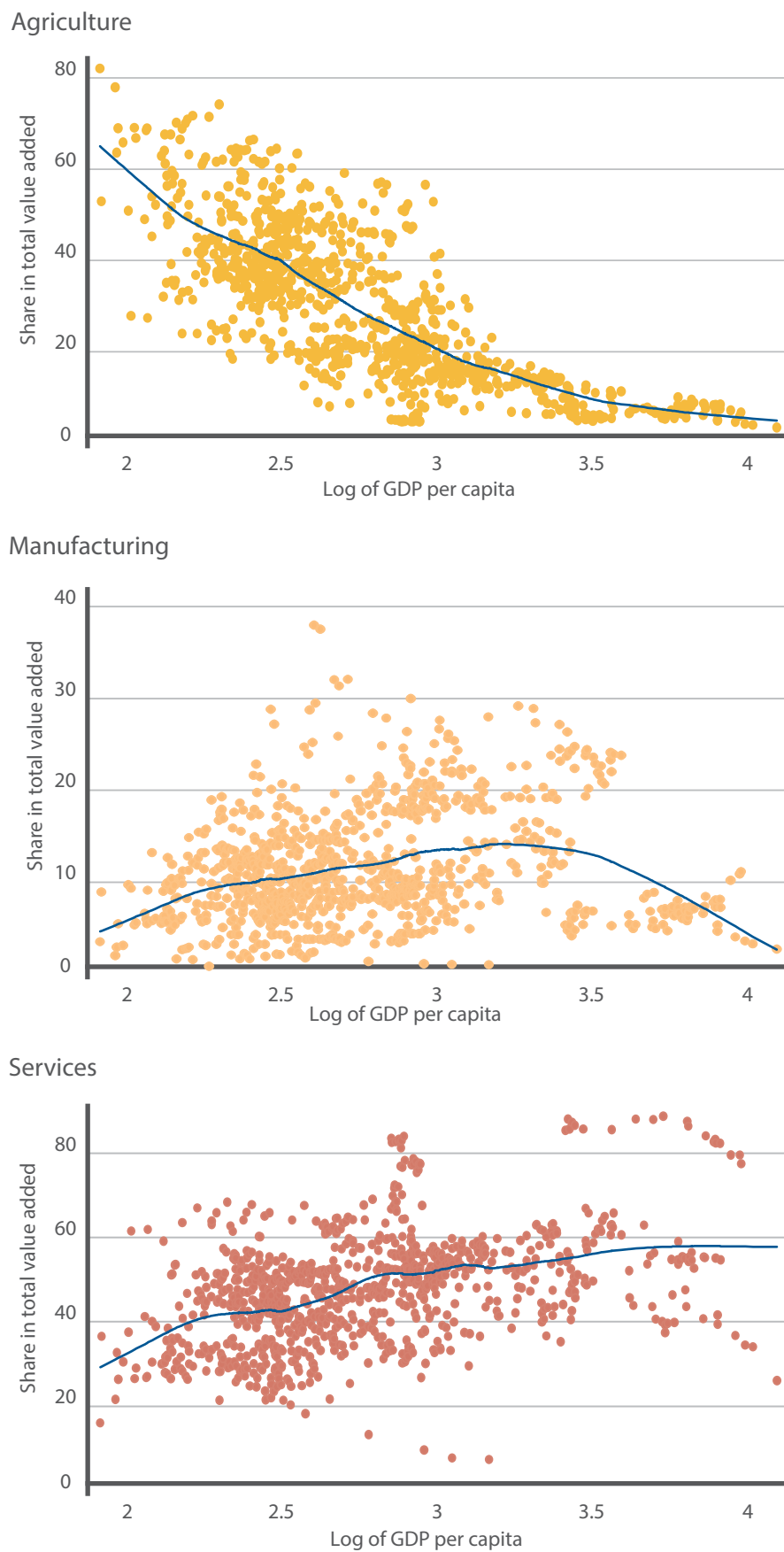
But industrial growth does not mean manufacturing growth: the wider category exceeded the narrower category regionally and subregionally (figure 2.6). This gap is particularly wide in Southern Africa, where average industrial growth over 2000–2012 was 3.6 times that of manufacturing, and 2.7 times in West Africa.

FIGURE 2.2: SECTORAL SHARE OF VALUE ADDED IN AFRICA (1970–1979)



Source: Calculations based on United Nations Statistics Division national account database and International Labour Organization (ILO) Key Indicators for the Labour Market (KILM), 8th edition.

FIGURE 2.3: SECTORAL SHARE OF VALUE ADDED IN AFRICA (1980–1999)

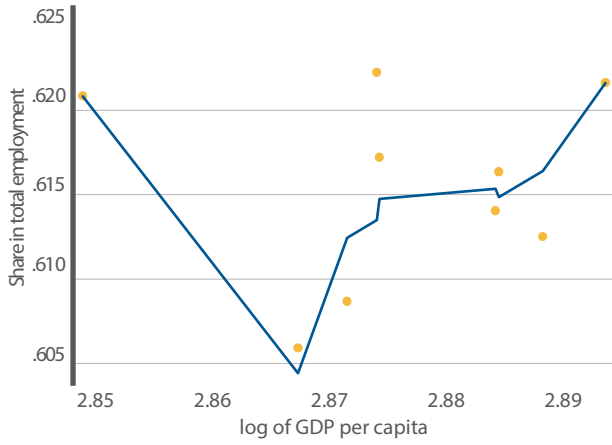


Source: Calculations based on United Nations Statistics Division national account database and ILO Key Indicators for the Labour Market (KILM), 8th edition.

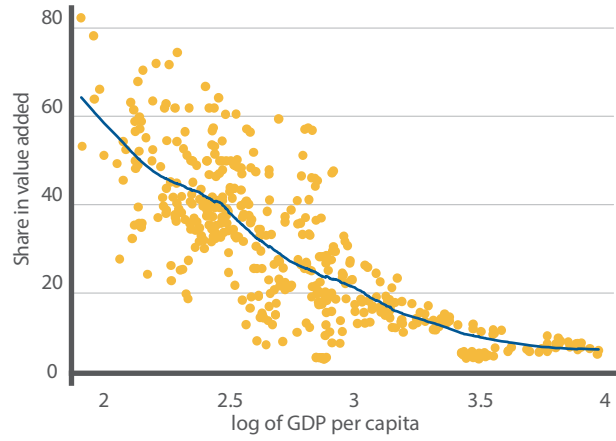
FIGURE 2.4: SECTORAL SHARE OF EMPLOYMENT AND VALUE ADDED IN AFRICA (1991–1999)

Agriculture

Employment (agriculture)

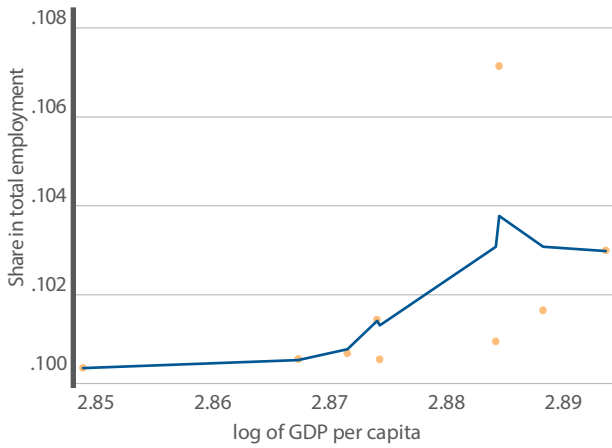


Value added (agriculture)



Industry

Employment (industry)

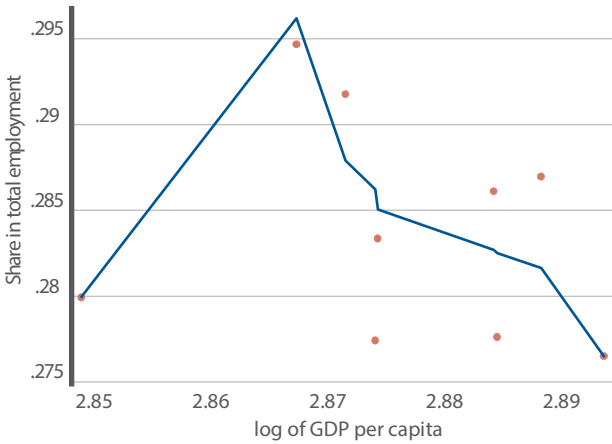


Value added (manufacturing)

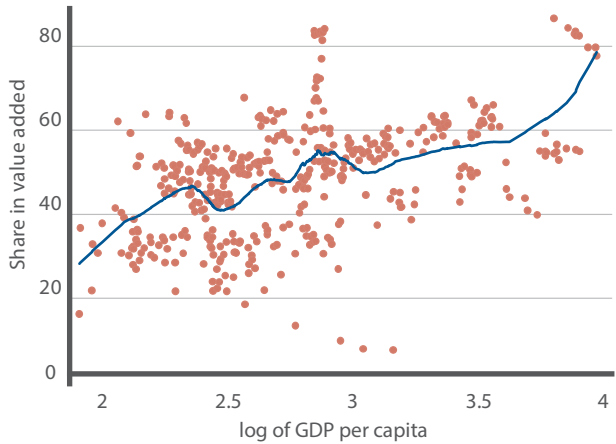


Services

Employment



Value added

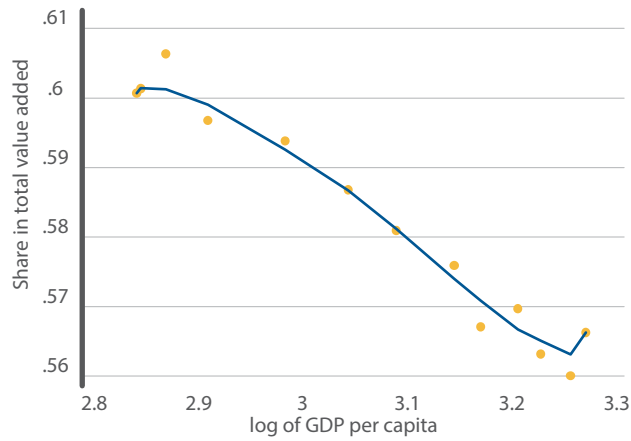


Source: Calculations based on United Nations Statistics Division national account database and ILO Key Indicators for the Labour Market (KILM), 8th edition.

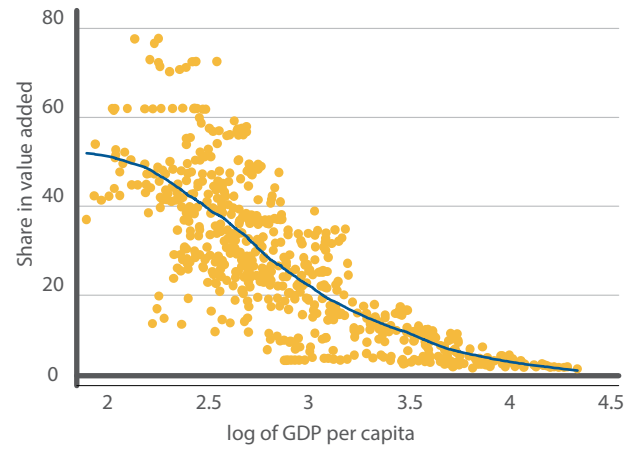
FIGURE 2.5: SECTORAL SHARE OF EMPLOYMENT AND VALUE ADDED IN AFRICA, 2000–2012

Agriculture

Employment (agriculture)

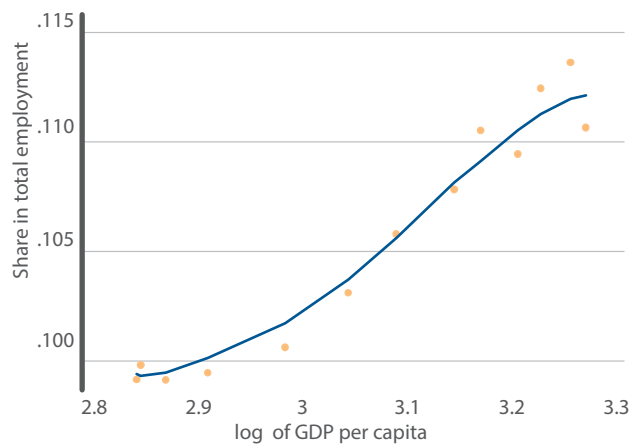


Value added (agriculture)

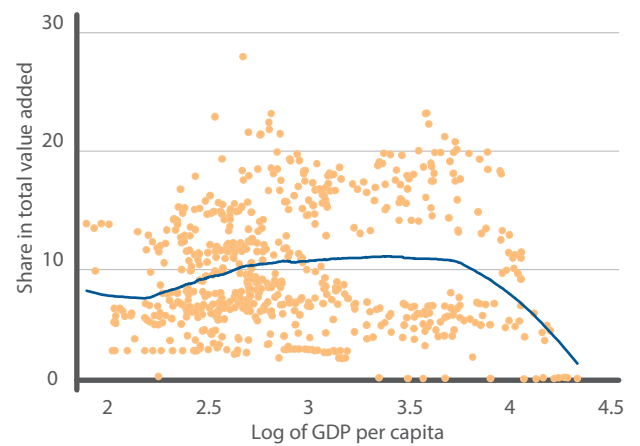


Industry

Employment (industry)

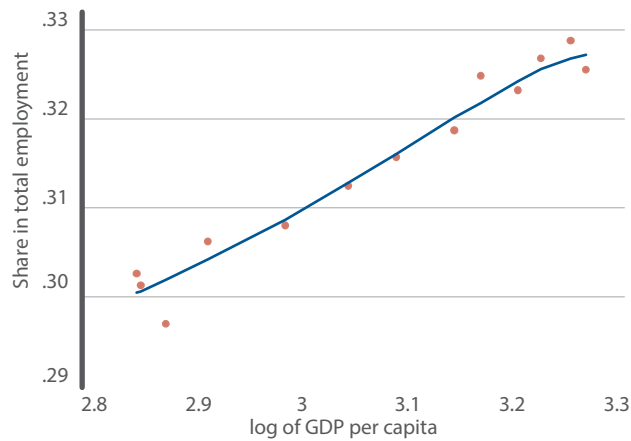


Value added (manufacturing)

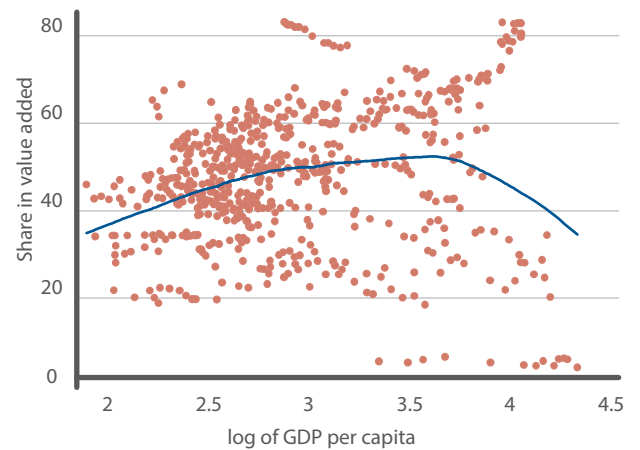


Services

Employment



Value added



Source: Calculations based on United Nations Statistics Division national account database and ILO.

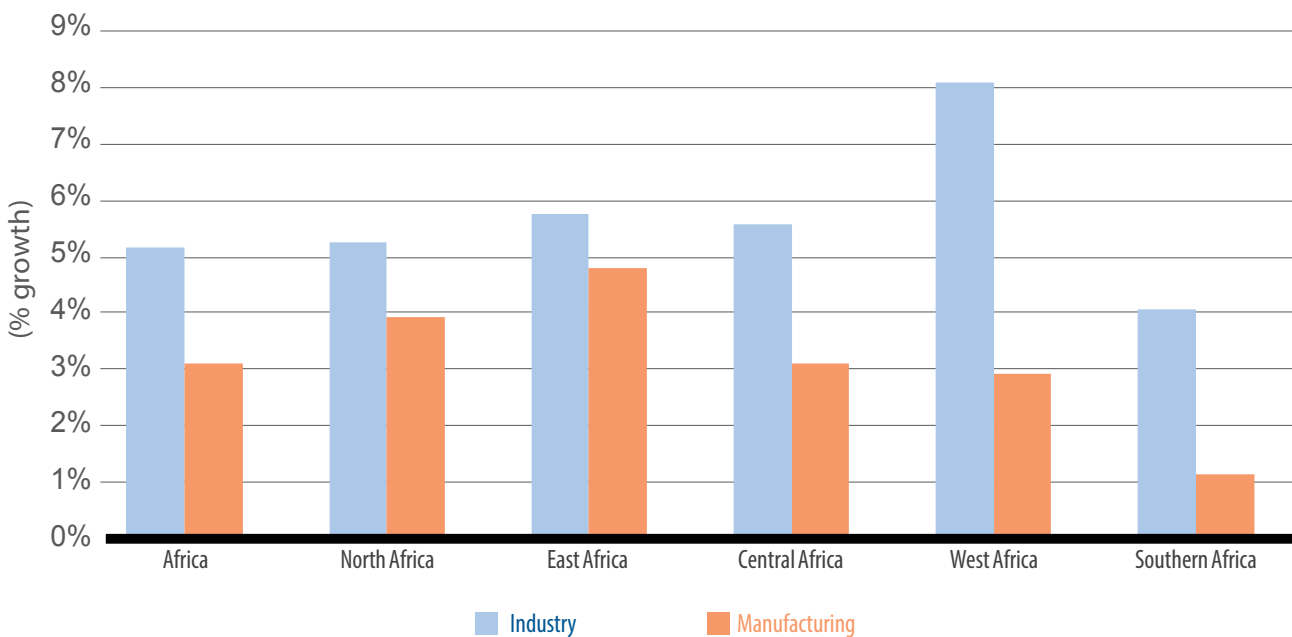
Differences in sectoral performances are also seen by economic group. For example, over the 2000–2012 period oil-exporting countries had higher average (and industrial) growth than oil-importers (for country groupings, see the Statistical note). The industry share of GDP in oil-exporting countries is also higher. Services remained the strongest driver in both groups, for oil exporters contributing 47 per cent and for oil importers 61 per cent.¹

Like oil-exporting countries, mineral-rich African countries have benefited in the last decade from high commodity prices and strong demand from emerging markets such as China and India (see the Statistical note). But this is not shown in their average growth rate, which is lower than that of mineral-poor countries. Mineral-poor countries have also performed better than mineral-rich countries in all three sectors, with services growing

the fastest and agriculture the slowest. The higher share of services in the GDP of mineral-rich countries has seen that sector contributes the largest share to overall growth.²

Geographical features affect sectoral composition of GDP, with landlocked countries more dependent on agriculture than coastal countries (ECA and AUC, 2014). Landlocked countries may also face more challenges in developing industry, because of disproportionately high trade and transaction costs and poor access to ports, hindering opportunities to benefit from regional and global trade. Therefore structural transformation may remain slower in these countries. However, for 2000–2012 GDP growth (bolstered by agriculture) was stronger in landlocked countries than in coastal countries (see the Statistical note).

FIGURE 2.6: INDUSTRIAL AND MANUFACTURING GROWTH RATE BY SUBREGION, 2000–2012



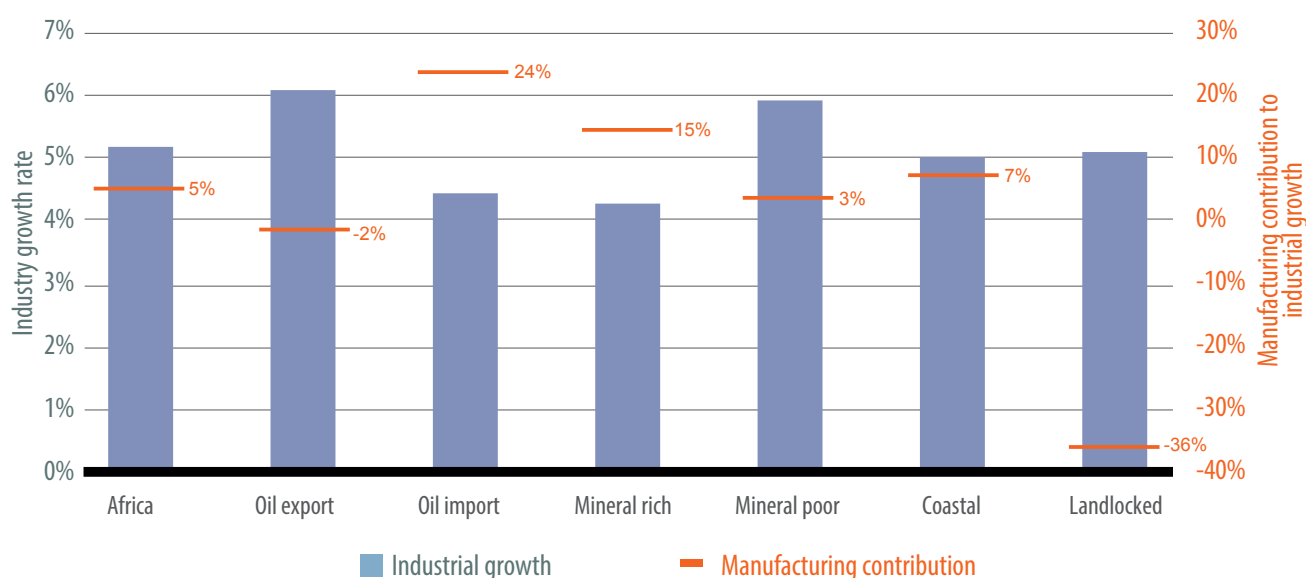
Source: Calculated based on World Development Indicators (database).

Manufacturing’s contribution is particularly low in oil-exporting, mineral-poor and landlocked countries (figure 2.7). In the first two groups, this low contribution comes from the low share of manufacturing in industrial output (16 and 11 per cent respectively). In landlocked countries, manufacturing growth is below that of industry.

At the regional level, manufacturing’s share in industrial output is 33 per cent, but its contribution to industrial growth remains slight overall at 5 per cent and rather bleak in oil exporting (-2 per cent), mineral-poor (3 per cent) and landlocked countries (-36 per cent), underlining the lack of structural change—services have been more important to economic growth—and the structural and policy challenges ahead for Africa’s long-term development (box 2.1).

In Africa, manufacturing’s share in industrial output is 33 per cent, but its contribution to industrial growth remains slight overall at 5 per cent, underlining inadequate structural change

FIGURE 2.7: AVERAGE MANUFACTURING CONTRIBUTION TO INDUSTRIAL GROWTH, 2000–2012³



Source: Calculation based on World Development Indicators (database).

BOX 2.1: IMPORTANCE OF GOOD MACROECONOMIC POLICIES FOR PRODUCTIVITY GROWTH

Structural transformation—resource reallocation from low- to high-productive sectors—was behind China’s ability to sustain high productivity growth from 1978–1995 (see Fan et al., 2003). From 1950–1975 (“the golden age” of productivity), Latin America achieved more than 4 per cent productivity growth annually. Can Africa do the same?

ECA (2014) adopts the de Vries et al. (2013) approach to decompose aggregate labour productivity for 11 countries into two sources—productivity resulting from within-sector resource allocation and productivity resulting from cross-sectoral resource reallocation (structural change)—and examines the impact of policies on productivity, using the three policy periods above mentioned above.

During the SAP period, five of the eight countries that pursued SAPs saw labour productivity fall: Ethiopia, Kenya, Malawi, Nigeria and Tanzania. Botswana and Mauritius, which did not go this route, almost doubled productivity. All eight countries saw productivity bounce back in the quasi-planning period.

Half the countries that adopted SAPs experienced deterioration in the contribution of static structural transformation (labour did not sufficiently move towards sectors with higher productivity), while almost all the countries experienced a reduction in the contribution of dynamic structural change to aggregate productivity (productivity in expanding sectors did not grow faster than in shrinking sectors). But the decrease in industrial and manufacturing productivity

during the SAP period (for most countries that pursued SAPs) seems to coincide with improving agricultural productivity. After 2000, as productivity in industry and manufacturing started to pick up again, productivity growth in agriculture started slowing. The pickup in manufacturing productivity after 2000 was driven mainly by increased static rather than dynamic structural transformation.

Half the countries saw improved services productivity during the SAP period and most did after 2000. For most countries the contribution of static structural change to aggregate productivity in services has been positive during all three policy regimes.

Further analysis in ECA (2014) examining drivers of productivity-enhancing structural transformation underscores the positive and significant role of economic planning, institutional quality, political stability and human capital development. It also underlines the importance of good macroeconomic policy in structural change, vindicating the return to a measure of economic planning—policy that emphasizes the state’s role in development plans.

Policies fostering trade openness do not necessarily enhance productivity, as such openness undermined productivity over 1980–2010. This finding is supported by the negative impact of export diversification on productivity resulting from the continent’s reliance on raw commodity exports. Although Africa’s exports increased over the years, they remained concentrated in agricultural

commodities, unprocessed minerals and unrefined oil, raising economies’ vulnerability to global shocks. Value addition and export diversification are responses to this quandary.

Intra-African trade is more diversified and industrialized than exports to the rest of the world, although its share in Africa’s total trade is still less than 15 per cent.⁴ That proportion needs to increase, as intra-African trade has a positive influence on structural change (ECA and AUC (2014)). ECA and AUC (2012) have suggested trade policies (such as working with private entities) that foster regional integration, value addition and industrialization. (Chapters 3, 4 and 5 provide further analysis.)

Human capital is important for productivity. Life expectancy and public and private spending on health and higher education are factors having a significant positive effect—but Africa has not done so well in higher education. High-quality institutions ensuring low corruption and effective regulation, along with political stability and absence of conflict, have a positive influence—as do macroeconomic factors such as a competitive exchange rate and low inflation.

SOCIAL DEVELOPMENT AND STRUCTURAL CHANGE: A BI-DIRECTIONAL LINK

Recent African economic performance has not followed an inclusive and sustainable path. Africa's low level of development stems from its slow move from commodity-based activities, contributing to trade-induced volatility in economic growth that hinders accumulation of physical and human capital. Life expectancy—a proxy for health—and post-primary education are significantly associated with productivity and structural change, which also require good human capital. The essential features that define economic change are tied to *social* transformation (ECA, 2014).⁵

Social policy has a vital role in strengthening these links. Malaysia, a successfully transformed economy, estimates future manufacturing-skill needs by identifying supply gaps in current arrangements. In Mauritius, technical and vocational educational training (TVET) accounts for about half of secondary school enrolment and provides skills to lower and middle-level technicians who boost industrial development. Mauritius also aligns social policies—including skills upgrading, employment and social protection policies—with its industrialization needs. Effective distributional policies and investment in research, innovation and technological upgrades are other important channels through which countries like Mauritius have achieved more equitable and inclusive social development (ACET, 2014).

Inclusive growth is fundamental for structural change to be truly transformative. Yet poverty is still rife in many parts of the continent, and the region is home to seven out of the world's 10 most unequal societies across many dimensions such as wealth, income and access to public services. To make inclusivity a reality, and in response to a call of ECA member states for an African development

framework, ECA has developed an index to measure social inclusion (box 2.2).

Country-based evidence from the ASDI can help inform policy makers on the drivers of exclusion in their respective countries and map policies that help reduce exclusion in that specific dimension of development. ASDI's computation can help countries improve data collection (particularly subnationally) and strengthen their capacity to monitor progress on poverty and exclusion.

ASDI can be a powerful tool in monitoring and guiding social investments and also indicating adequate fiscal transfers to subnational tiers of government to enhance equitable inclusiveness in socio-economic development.

POVERTY AND INEQUALITY

It is estimated that in 2015, 366 million people in Africa will still be living on less than \$1.25 a day (World Bank, 2014).

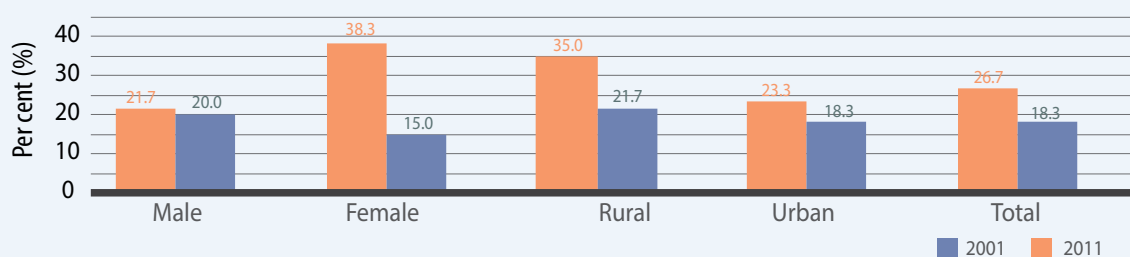
The growth elasticity of poverty (change in poverty with a 1 per cent growth rate) for resource-rich countries in Africa—defined as countries with an average resource rents-to-GDP ratio of more than 15 per cent—is -1.157 .⁶ This impact of growth on poverty is lower than any other regional average, highlighting the weak linkages between the commodity sector and the wider economy in these countries. For example, in East Asia the growth elasticity of poverty is twice as high—and three times larger in Latin America (Fosu, 2011). A low growth elasticity of poverty reiterates the structural imbalance between the capital-intensive growth sectors and the reduction of poverty through meaningful job creation.

BOX 2.2: THE AFRICAN SOCIAL DEVELOPMENT INDEX (ASDI)

Following a life-cycle approach, ASDI aims to measure progress in reducing human exclusion in various dimensions of well-being, including health, education, employment and income. Its key feature is that it may be used at regional, national and sub national levels to assess the impacts of exclusion between different countries, locations and population groups, capturing inequalities within and between countries. ASDI can be used to identify the drivers of exclusion in each country or sub region and assess the impact of social policies on exclusion.

The tool is being piloted in five African countries. Preliminary findings from Morocco show that ASDI exclusion fell by a third over 2001–2011—particularly for women—whose rates dropped by nearly two thirds against under one tenth for men (Box figure 1).

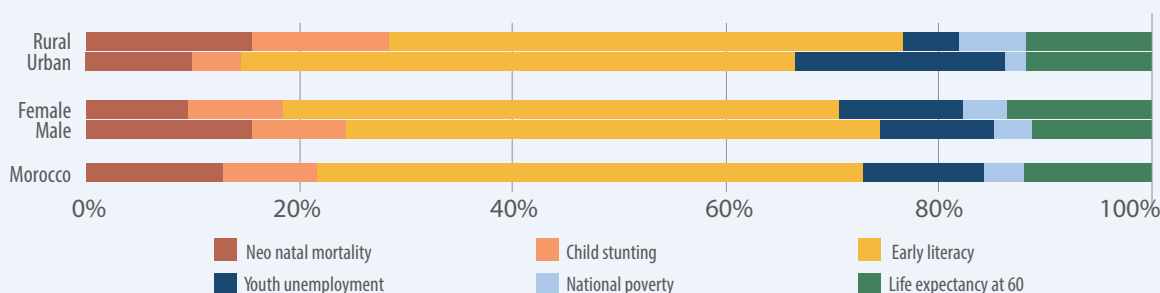
BOX 2.2 FIGURE 1: TRENDS IN EXCLUSION IN MOROCCO BY SOCIAL GROUP, 2001–2011



Source: ECA computation based on HCP data.

Further decomposition of the ASDI by subgroups shows the contribution of different dimensions to overall exclusion. Youth unemployment seems to be the main driver of exclusion in urban Morocco, while health in early stages of life seems to affect boys more than girls (Box figure 2).

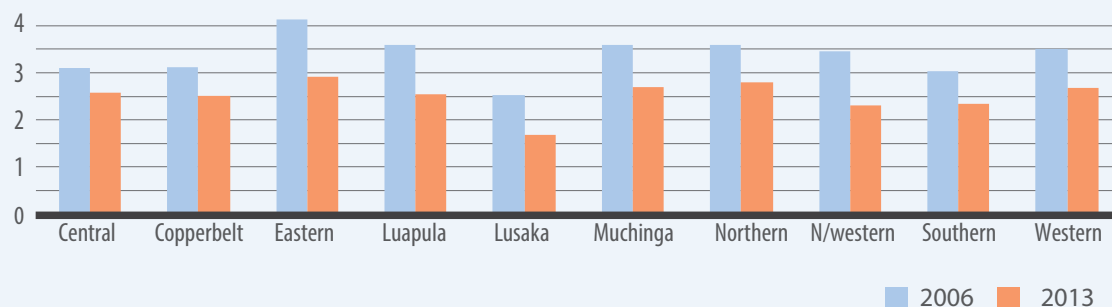
BOX 2.2 FIGURE 2: DECOMPOSITION OF THE ASDI IN MOROCCO BY DIMENSION AND SUBGROUP OF POPULATION, 2010-2012



Source: ECA computation based on HCP data.

In Zambia, exclusion has fallen in all regions, but the historical and spatial decomposition highlights differences among subregions, demonstrating country specificity in mapping changes in exclusion (Box figure 3).

BOX 2.2 FIGURE 3: THE ASDI IN ZAMBIA BY SUBREGION, 2006–2013



Source: ECA's computation based on 2006 and 2010 Zambian Demographic and Health Survey and Living Conditions Monitoring Survey.

The responsiveness of poverty to economic growth is weakened by persistent socio-economic inequality in Africa. Widening inequalities in outcomes and opportunities significantly reduce the gains from growth accruing to the poor (Ravallion, 2001; Fosu, 2011). Inequality in the distribution of assets and in access to public services such as education and health care deepens the gap between the haves and the have-nots, creating a vicious circle of inequality, poverty and exclusion. There is evidence of higher inequality within countries and between population groups, providing fertile ground for socio-political instability.

DEMOGRAPHY AND URBANIZATION

Africa is going through an unprecedented demographic and urbanization shift. Structural change there is far slower than it was in the transformed economies of East Asia. The East Asian countries' growth path has been associated with a positive demographic shift and seem to relate strongly to the region's fertility transitions. Due to fertility decline, their age structures evolved in a way highly favourable for economic growth,

giving these economies a potential to harness their demographic dividend.

A demographic transition entailing increased life expectancy and declining fertility has a direct and different impact throughout the lifecycle (box 2.3). The drop in Africa's total fertility rate—which still hovers at around five children per woman—is slow (Bongaarts, 2013). An increase in the share of the working-age population raises the labour supply and productive potential, contributing to a demographic dividend if the labour market absorbs this new tide of workers. Africa's population is expected to rise by 3.2 billion (of the projected 4 billion worldwide increase) by 2100. Its working-age population will increase by 2.1 billion over the same period, accounting for 41 per cent of global working-age population by 2100, a surge from 12.6 per cent in 2010 (Drummond et al, 2014).

Adequately harnessed, a rising share of the working-age population and resulting decline in the dependency ratio can lead to higher economic output, savings and investment (Lee, 2003; Galor, 2005). In Africa's least developed countries (LDCs),

BOX 2.3: AFRICA'S DEMOGRAPHIC TRANSITION—A DIVIDEND THAT MUST BE ENCASHED

Africa's demographic transition is atypical among regions, particularly East Asia. Africa starts at a much lower base. In the 1950s the population share of those 15–64 was 0.55 per cent in Africa and 0.6 per cent in Asia. Africa's transition is longer, with Asia starting in the 1970s and Africa in the mid-1980s, and its peak, predicted at around 2090, is at a relatively lower level than other regions. Africa's transition is also far slower at about three generations as compared to one generation for other regions.

Nor is Africa's transition homogeneous. South Africa, Botswana, Cabo Verde,

Seychelles and Mauritius have nearly completed theirs, in a time frame similar to Asia and Latin America. Due to the fast decline in their mortality and fertility rates, the share of their working-age population increased by nearly 20 percentage points.

Economic impacts on the continent are notable. The changing age structure favours savings, higher female labour force participation and lower fertility (Bloom et al., 2009; Soares and Falcao, 2008). And with declines in child mortality, parents prefer fewer children, placing greater emphasis on the quality of education and

health, which (theoretically) increases productivity (Rosenzweig, 1990; Soares, 2005). The median African country with an initial per capita income level of around \$550 in 2010 can expect to benefit from a demographic dividend—beyond the growth that would occur with an unchanged demographic structure—of about \$1,350 by 2100. The resulting GDP per capita of \$3,865 is higher by about 56 per cent compared with a scenario of an unchanged share of working age population (Drummond et al., 2014).

demographic growth is the main driver of the labour force over the long run, and the age decomposition indicates that the youth bulge (15–29 years of age) is the main contributor of labour supply. Yet at the current pace of structural transformation—even in the optimistic scenario of all African LDCs meeting the Istanbul Programme of Action’s 7 per cent annual economic growth target by 2020—generating enough jobs to productively employ new entrants and reabsorb those in informal or vulnerable jobs is likely to prove extremely difficult (Valensisi and Gauci, 2013).

AFRICA’S RAPID URBANIZATION WITHOUT INDUSTRIALIZATION

Urbanization in most developing countries is linked with industrialization, particularly the production of tradable, manufactured goods. In Africa this link seems to be missing, partly due to an income effect arising from natural resource endowments and resource rents disproportionately spent on urban goods and services. This gives rise to “consumption cities” that are populated primarily by workers in non-tradable services. The growth of “production cities”—what Africa needs—is underpinned by movement of labour from agriculture into industry (Gollin et al., 2014).

Despite rapid urbanization, Africa is still the least urbanized continent in the world, with only 38 per cent of its population in cities. In 1950–2005, its

urban population grew by an annual average of 4.3 per cent. Even though the annual growth rate declined to 3.4 per cent in 2005–2010, African urban areas grew 1.7 times faster than all other regions over the same period (UN-Habitat, 2010).

As the locus of economic activity shifted from the countryside, Africa gained 43 cities with more than 1 million people by 2005, up from just 28 cities a decade earlier, so that combined mega-cities and smaller urban areas accounted for 55 per cent of GDP (AfDB, 2011).

African cities exhibit the highest global income inequalities—with an average Gini coefficient of 0.529—while the world average is below 0.4.⁷ Although urbanization has been associated with improved human development, rising incomes and better living standards, it is estimated that 40–85 per cent of Africa’s urban population lives in slums, and most cities are marked by sharp economic and social polarization (UN-Habitat, 2008). The urban poor live in life-threatening conditions with limited access to clean water, adequate drainage and sanitation. They are also affected by high levels of pollution due to toxic material, traffic

Despite rapid urbanization, Africa is still the least urbanized continent in the world, with only 38 per cent of its population in cities

BOX 2.4: DECONGESTING CITIES

A few African governments have started to promote new urban development away from their major population concentrations. They are planning satellite cities to guide population pressure away from the capital and promoting urban corridors to disperse economic activity and populations.

For example, the Rwandan government has outlined an ambitious and innovative plan to develop mid-sized intermediary cities and boost economic opportunities there. It will also direct funds to vocational and technical training programs for youth, so that they will be able to help construct the necessary 35,000 urban housing units annually using cost-effective building materials and technology.

Similarly, Morocco has experienced huge success in stopping slum growth. Launched in 2004, its program focused on building affordable housing, developing infrastructure and creating better sanitation. As of 2011, 100,000 new housing units had been built and about 1.5 million people had been helped or moved out of slums. Residents now have sewage systems, clean water, electricity and access to schools and health clinics, some through public-private partnerships (Philips, 2014).

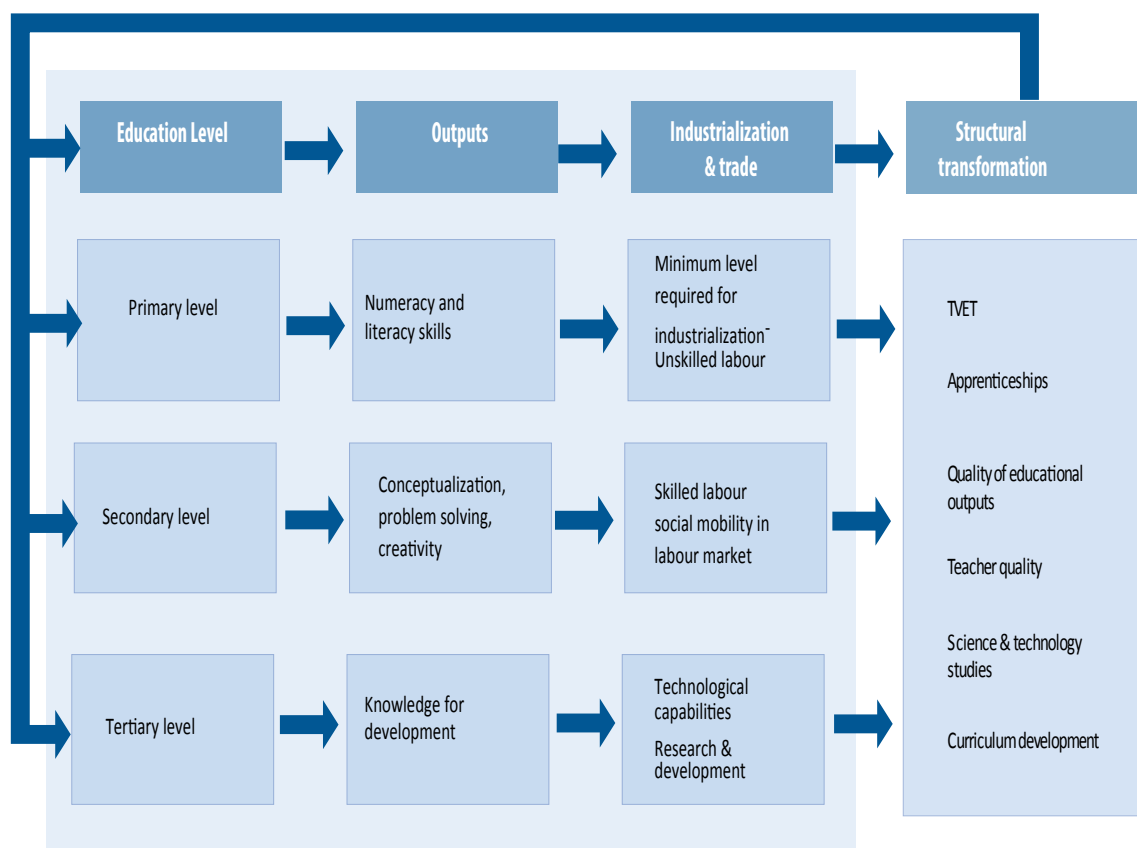
and industrial emissions, residential congestion and absence of green spaces. This situation affects labour productivity and capabilities, which some governments appreciate (box 2.4).

A slow demographic shift—a youthful population moving to urban areas that have a preponderance of consumption cities alongside an employment shortage in industrial and modern services—has exacerbated informal employment. Young people are particularly affected and experience high unemployment and underemployment rates. These trends have also increased the demand for public services, particularly education and health.

BUILDING AN EDUCATED AND HEALTHY WORKFORCE

The skills required for transformation go beyond acquisition of formal schooling. National productive capacities develop through the interrelated processes of capital accumulation and technological progress. The assimilation rather than imposed adoption of technology through international trade was a key factor in East Asia’s change (Nelson and Pack, 1997), but this required policies that encourage entrepreneurship and innovation. Policies in which the educational system is combined with on-the-job training and apprenticeships among other informal training produce the skills required for transformation.

FIGURE 2.8: EDUCATION AND STRUCTURAL TRANSFORMATION



Source: ECA

Beyond hard technical competencies, soft skills are needed—such as cognitive, creative, problem-solving and managerial skills (figure 2.8)—which are difficult to develop in traditional school systems. Recent evidence shows that programmes combining in-class and on-the-job training provide soft (behavioural) skills and hard (technical) skills that can have a positive impact on employability and earnings. A poorly skilled and educated labour force is the top supply bottleneck underscored by global executives when considering manufacturing investment decisions in Africa (ACET, 2014).

CONSTRAINTS OF PRIMARY EDUCATION

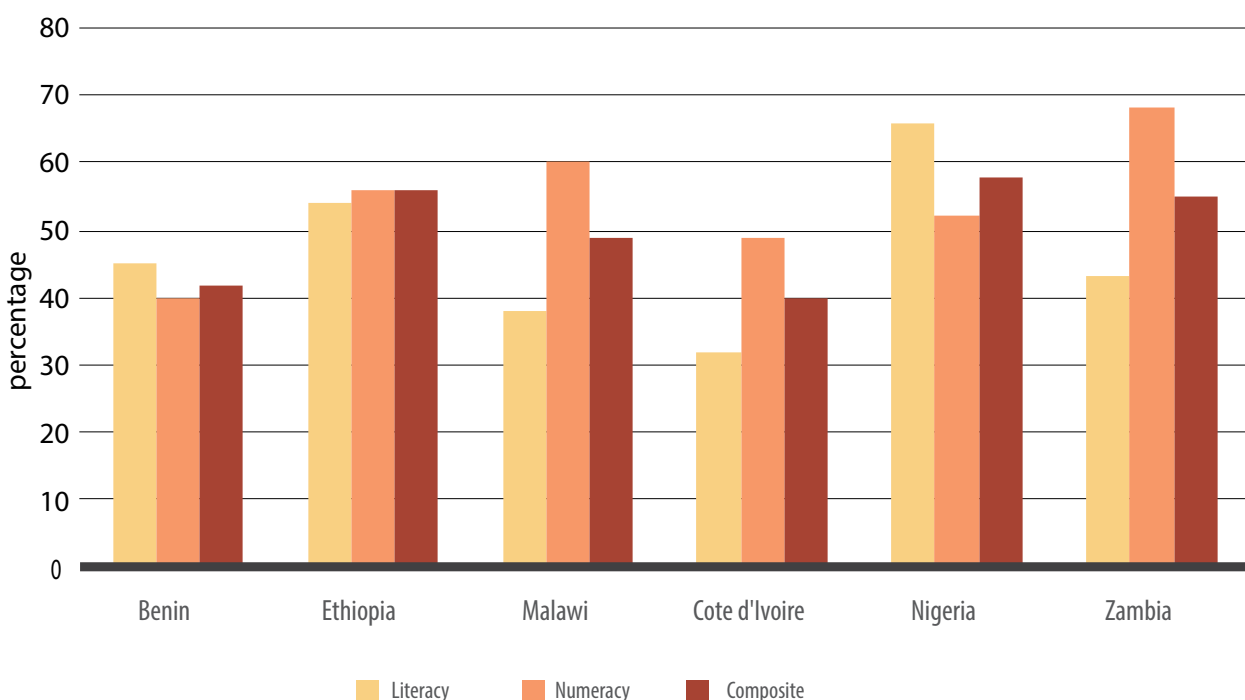
Africa’s progress in education has been aligned to attaining its stated goals (such as the Millennium Development Goals) and the need to provide universal primary education. Africa has improved primary school enrolment, which increased by 24 per cent in 1990–2012 (ECA, 2014), but failed to match

that improvement with progress in completion rates, which remain the lowest worldwide.

This progress is also permeated with inequities across income, gender and location. In Central, Eastern, Southern and West Africa only 23 per cent of poor, rural girls complete their primary education (UN, 2014). In some countries, children in the poorest 20 per cent of the population are three times less likely to be enrolled in primary school than children from the wealthiest 20 per cent. In 2007, African girls accounted for 54 per cent of the world’s out-of-school population (UN, 2014). Limited educational opportunities and rudimentary skills confine many workers to the informal economy because

Africa’s progress in education has been aligned to attaining its stated goals (such as the Millennium Development Goals) and the need to provide universal primary education

FIGURE 2.9: LEARNING LEVELS IN SELECTED AFRICAN COUNTRIES (2013)



Source: Calculations based on Watkins (2013).

of the vicious cycle of a workforce characterized by “low skill, low productivity, low wage and low investment” (Pina et al., 2012).

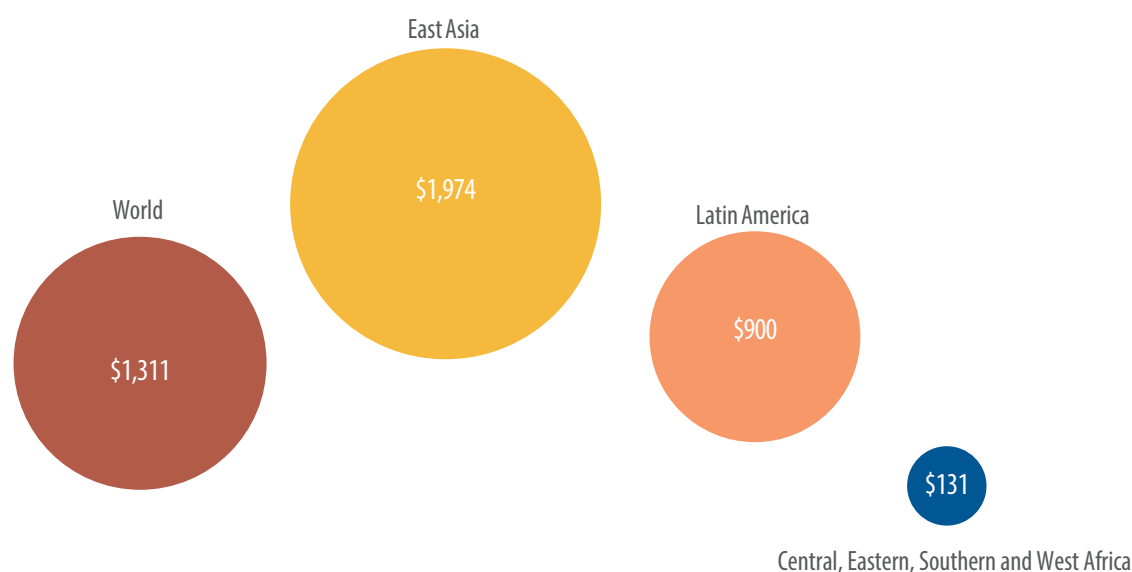
A 2013 survey shows that one out of three children in a selected group of African countries falls short of the minimum learning threshold on numeracy and literacy (figure 2.9), leading to skill gaps and increasing barriers to socio-economic opportunities (Watkins, 2013). But some African countries have linked improving the quality of primary school outputs to transforming their economies. Cabo Verde, the second African LDC to exit the LDC category after Botswana, has focused on its human capital development and educational systems. The strategic direction of its modern services was set by high enrolment and completion rates for primary school and high access to secondary education, alongside heavy investment in technical and vocational training (AfDB, 2011).

Overall educational quality, essential for an industrial workforce, is inadequate. The supply-side factor of large class size remains challenging. Of 162 countries with data, 26 had a pupil/teacher ratio above 40:1, 90 per cent of them in Africa. Africa has

a shortfall of about 1.7 million teachers, indicating the need for expanding training (UNESCO, 2014).

Unless governments move quickly, this shortfall will only worsen given population trends. In 2012, there were 35 per cent more children to accommodate than in 2000. The number of children enrolled increased from 62 million in 1990 to 149 million in 2012 but resources failed to keep up (UN, 2014). The fertility transition is roughly one-third slower in Africa than it was in East Asia, keeping primary school student inflows high (Bongaarts, 2013). If not matched by adequate funding and teaching standards, these trends will continue to undermine educational outcomes. The annual unit cost of public expenditure for primary schools in Africa per child is \$131, one tenth of the world average and almost invisible against the East Asian average of \$1,974 at purchasing power parity (PPP) (figure 2.10).

FIGURE 2.10: UNIT COST OF PRIMARY SCHOOL IN 2010, AT CONSTANT PRICE PPP TERMS



Source: Calculations based on UNESCO (2014)

IMPROVED SECONDARY EDUCATION, BUT NOT ENOUGH FOR THE LABOUR MARKET

The low quality of primary education outputs is one of the drivers influencing a lower transition to secondary education. Secondary education enrolment and completion are important for young people to acquire the skills to access more specific technical and vocational training, which can encourage productivity gains (ACET, 2014).

Enrolment in lower secondary education increased from 29 to 49 per cent over 1999–2011 in Central, Eastern, Southern and West Africa. But completion rates remain low on average, at 37 per cent, and highly skewed towards higher-income urban populations. For example, in Rwanda and Malawi, both of which accelerated their lower secondary school enrolment in 2000–2010, completion rose from 9 per cent to only 15 per cent and from 16 per cent to only 25 per cent respectively (UNESCO, 2014). Thus at secondary level, increasing private school provision excludes a large share of the youth from quality education in many countries, partly because households bear up to 37 per cent of direct education costs in primary education on average, but 58 per cent in secondary education.

However, the overall effect has been poverty reducing. In Tanzania, 82 per cent of workers with less than primary education were below the poverty line, but working adults with primary education were 20 per cent less likely to be poor, while secondary education reduced the chances of being poor by almost 60 per cent (UNESCO, 2014). Providing the education to transform knowledge into productivity is key for Africa's industrialization and includes wider access to secondary education. After 2000, manufacturing workers in Botswana, Cameroon, Ghana, Guinea and Kenya had six to nine years of schooling beyond primary school. In Namibia and Uganda, the largest proportion of the educated manufacturing labour force has 10–12 years of schooling (Fox, 2008).

TRANSITION FROM SCHOOL TO WORK

Tertiary education enrolment in Africa is growing at 6 per cent a year, clearly insufficient to meet the need for highly skilled workers. Moreover, Africa's university enrolments are skewed towards humanities and liberal arts, with science and engineering only 25 per cent of enrolment. In the Republic of Korea, public universities provide 70 per cent of higher education, students pay lower fees for science, technology, engineering and mathematics (STEM) courses and the state gives subsidies for private university enrolment in similar courses (ACET, 2014). In Mauritius, the overall educational strategy links tertiary education to innovation and creativity (Government of Mauritius, 2009). In both countries this is aligned with a focus on TVET.

Traditional school systems are ill-equipped, but TVET centres are not given enough attention to meet the needs of industrial development. TVET in Africa accounts for less than 5 per cent of training among youth. Many courses are not formalized and have too few qualified staff, obsolete equipment, ill-adapted programmes and weak links to the job market. But in West Africa, governments that have put in place vocational training for workers in major urban cities have seen higher marginal returns from these programmes and improved individual income earnings than from general secondary education (Kuépié et al., 2009).

PROGRESS IN HEALTH IS ESSENTIAL FOR LABOUR PRODUCTIVITY AND INDUSTRIALIZATION

Lewis (2014) noted that targeted programmes that alleviate poor health and malnutrition can help raise educational attainment and productivity, with multiplier effects on growth and development. Cole (2006) and Lu et al. (2009) found also that the impact of poor health (such as malnutrition, malaria and water-borne diseases) on total factor productivity and income losses is significant across a wide variety of specifications. Indeed, labour productivity forgone (measured by working hours

lost) due to undernutrition-related child mortality can affect the whole economy, reaching 11.9 per cent (of GDP) in Ethiopia, 1.4 per cent in Swaziland and 2.0 per cent in Uganda (AUC et al., 2014). Failure to prevent or respond to undernutrition in a child's early life often leads to incremental health costs and exclusion from full labour market participation in later life.

POTENTIAL PRODUCTIVITY GAINS STYMIED BY WEAK EDUCATION AND HEALTH CARE

Progress in combating HIV, tuberculosis and malaria has been significant on the continent. Similarly, child and maternal mortality rates have decreased substantially. Medical advances have also contributed to reduced impact of communicable diseases on quality of life and income. For example, until recently HIV/AIDS was associated with a loss in worker productivity, income and welfare (ECA, 2004). But antiretroviral therapy coverage for 56 per cent of African patients gives important economic benefits through employment recovery. A recent study shows that many patients initiating treatment early avoided any loss of employment, and four years after initiating treatment patients had a 90 per cent chance of being employed. In contrast, HIV patients who lost their jobs before undergoing antiretroviral therapy faced long spells of joblessness (Barnighausen, 2012).

Potential productivity gains could be even greater if the issues of inequity of access and utilization of health services across income, gender and location are addressed. Health-related costs hit low-income groups disproportionately. In Ethiopia for instance, the cost of health care paid for by families is nearly 90 per cent of the total household health costs (AUC et al., 2014), putting a heavy burden on low-income families—and is one of the main causes of families falling into poverty.

This anxiety over health care costs will only become more prevalent as non-communicable diseases—such as cardiovascular diseases, cancers, diabetes,

hypertension and chronic lung diseases—demand increasing health spending.

EMPLOYMENT IN MANUFACTURING AND SERVICES AS AN OUTCOME OF STRUCTURAL CHANGE

In South-east Asia—one of the fastest growing region—structural change brought large gains in labour productivity both in industry and service sectors (figure 2.11).

In countries such as Algeria, South Africa and Tunisia, decline in the contribution of low-productive agricultural employment supplemented by a rise in high-productivity industrial activities has opened avenues for economic diversification, increased competitiveness and integration of their transformed products in global value chains.

But jobs in Central, Eastern, Southern and West Africa are not moving out of agriculture as fast as theory predicts; and services are absorbing most of those jobs, leaving employment in industry stagnant at around 8.4 per cent during 2000–2013 (figure 2.12). This hampers economic and employment prospects as most services jobs are informal, having low productivity, low wages and poor working conditions. However, the job gain in high-end services reflects a successful shift (Chapter 4). For instance, Mauritius, expanded its tertiary sector through highly productive and labour-intensive activities (AfDB, 2011)

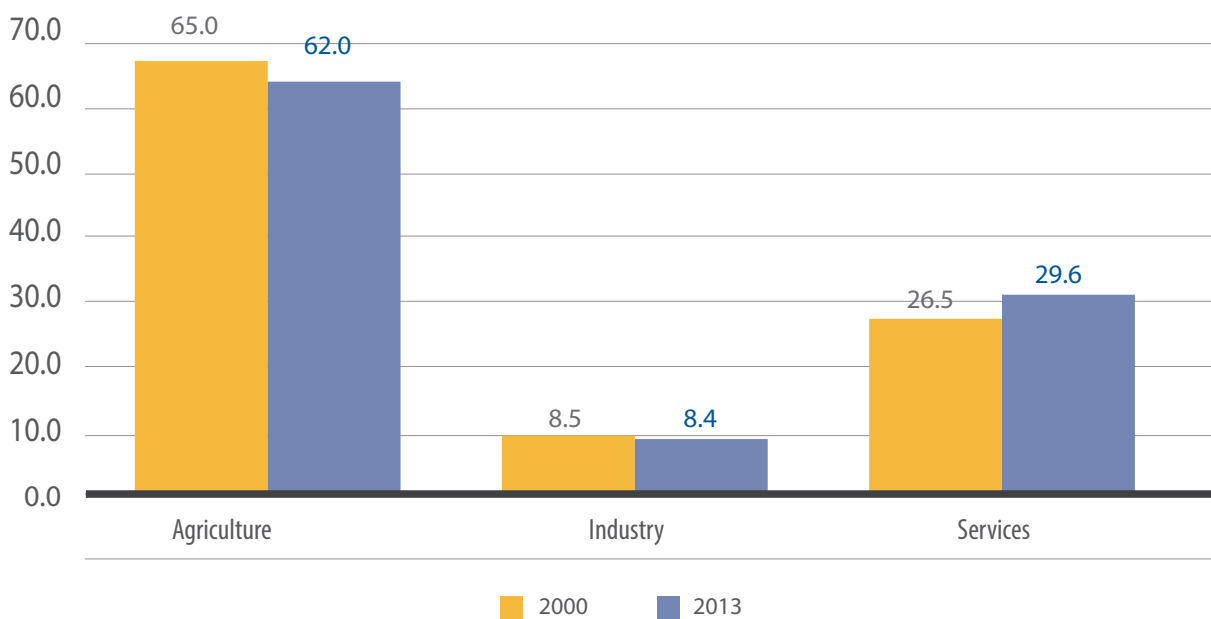
McMillan and Harttgen (2014) argue that a large share of Africa's recent economic growth can be attributed to a sharply declining share of employment in agriculture and a corresponding increase in labour moving from agriculture to more productive manufacturing and services. These declines have been more rapid in countries where the initial share of agricultural employment was highest, and where gains from commodity price increases have been spurred by improved governance and macroeconomic strategies.

FIGURE 2.11: EMPLOYMENT BY SECTOR IN SELECTED REGIONS, 2000–2013 (% CHANGE)



Source: Calculations based on Key Indicators of the Labour Market (KILM) (ILO 2014b).

FIGURE 2.12: EMPLOYMENT BY SECTOR IN CENTRAL, EASTERN, SOUTHERN AND WEST AFRICA, 2000–2013



Source: ECA calculations based on KILM (ILO 2014).

Finally, structural change and reallocation of jobs across sectors entail social adjustment costs. Layoffs, increased training needs for workers and reskilling requirements are only a few of the problems resulting from structural job shifts that also include greater demand for public services. The concentration of industries around big cities in Africa is also challenged by the lack of adequate infrastructure and provision of basic social services for workers who migrate to the cities in search of jobs—pushing them further into vulnerable low-quality employment.

EMPLOYMENT-TO-POPULATION AND PARTICIPATION RATIOS INCREASE IN AFRICA

Africa's employment-to-population ratio is third highest among regions, behind East Asia, South-east Asia and the Pacific. In Algeria, for instance, this ratio is more than five times higher for men than women (66.1 per cent and 12.3 per cent), while in Botswana and Cameroon the gender gap is narrowing.

In 2012, female labour participation stood at 16 per cent, against 75.8 per cent for men (ILO, 2014). Similar figures are found in Mauritania, Morocco and Tunisia, at a ratio of 1:3. Over the last decade growth in labour-intensive sectors such as manufacturing and services has been inadequate to absorb labour supply, but institutional and cultural norms—including marriage and family planning—may have discouraged women from entering the market.

WEAK LABOUR PRODUCTIVITY IS CURTAILING AFRICA'S EMPLOYMENT PROSPECTS...

One of the major challenges for meaningful job creation in Africa is low labour productivity. In 2012–2013, labour productivity grew at a mere 1.4 per cent in Africa, slower than in any other region.

Productivity gains are still held back by too little investment in factors of production, including

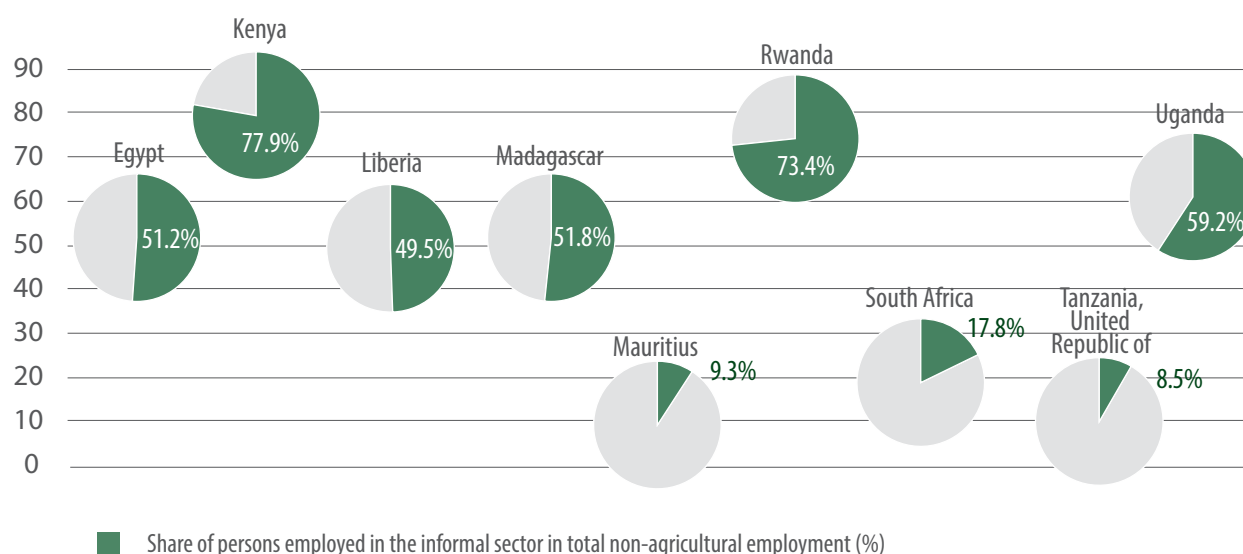
human resources. In four countries with data—Morocco, South Africa, Tanzania and Uganda, about one in 10 workers are underemployed.⁸ The skills of the workforce are underused, with consequences for current and future productivity. Investment in education linked to technology and innovation and in skills development that boosts productivity and meets labour-market needs is rare. One example is the human resource strategy in Cabo Verde, which shows strong ties between universities and businesses. High-end productivity shifts to the services sector have been created through the production of knowledge-driven services driven by innovation and entrepreneurship, building on e-governance tools (AfDB, 2011).

... WHICH CAN FUEL ECONOMIC AND SOCIAL INSTABILITY

With jobs often scarce, youth unemployment has reached worrying levels. In North Africa it reached 30.2 per cent in 2013, almost four times higher than adult unemployment (8.2 per cent). These gaps are even more pronounced for women—in Algeria in 2012, 36 per cent youth unemployment for women against 18 per cent for men, with 15.1 per cent of adult women unemployed and 5.7 per cent of adult men (ILO, 2014).

INFORMALITY STILL DRIVES JOBS

As the formal sector—public and private—cannot absorb the increasing tide of job seekers, informal employment usually drives job creation in most countries. In 2012, 77.2 per cent of workers in Central, Eastern, Southern and West Africa were estimated either self-employed, own-account workers or contributing family workers (ILO, 2014). In Kenya and Rwanda, three out of four workers are employed in the informal sector, a proportion that increases to over 80 per cent among women. Informal employment data is scarce, but selected African figures show the high level of informality present (figure 2.13).⁹

FIGURE 2.13: SIZE OF THE INFORMAL SECTOR, SELECTED COUNTRIES

Source: Calculations based on KILM (ILO 2014).

Such high rates of informality are largely due to abundant labour supply compounded by an absence of social safety nets, making it hard for most low-skilled workers to quit the labour market. Most of these workers operate under a high degree of informality and vulnerability, resulting in small and unpredictable income, poor working conditions and low productivity. Such informality is likely to trap people into poverty.

Although informality is mainly used as a coping mechanism, there is large scope to harness the potential of the informal sector in Africa through targeted enabling policies that expanding social protection systems, tax incentives, skill development programmes, technology transfer and infrastructure investment. Some countries have already started such programmes. The coverage of social protection of informal workers in Africa today is estimated at around 10 per cent compared to over 50 per cent in Latin America and the Caribbean. Creating an enabling environment will help boost productivity and create spillover effects, expanding jobs overall. In Senegal for instance, the government has set up training and vocational programmes for informal-sector workers, 90 per

cent of whom have no schooling or just a primary school education, combining basic education and technical skills (Wather, 2011).

Informal trade is the most important source of employment among self-employed women in Central, Eastern, Southern and West Africa, at 60 per cent of non-agricultural employment. Informal cross-border trade in the Southern African Development Community (SADC) region is worth \$17.6 billion a year, accounting for 30–40 per cent of intra-SADC trade; 70 per cent of its traders are women. A decade ago female informal cross-border trade amounted to 64 per cent of national trade's value added in Benin, 46 per cent in Mali and 41 per cent in Chad and given the employment creation by the services sector, these figures are unlikely to have changed (ILO, 2004). In the Horn of Africa, unofficial exports of some agricultural commodities like livestock and grains to neighbouring countries may constitute over 95 per cent of total trade in these commodities (ILO, 2004). In Uganda informal exports of industrial goods to its neighbours came to an estimated \$118 million in 2006, or 96 per cent of official industrial exports.

Intra-African trade, a mere 14 per cent of total trade, has higher value added than Africa's trade with the rest of the world (ECA and AUC, 2012). A 1 per cent increase in official intra-African trade results in a 0.45 per cent drop in youth unemployment, with a positive female gender bias of 0.61 (Anyanwu, 2014). Given informal cross-border trade's contribution to

job creation, particularly for women, an enabling and regulatory environment for this sector is needed.

TRADE AND EMPLOYMENT

Most of the voluminous theoretical and empirical literature on how trade affects job creation and wages considers the degree of trade openness, the role of labour market regulations and the adjustment costs associated with trade (Rodriguez and Rodrik, 2000; Baldwin, 2003; Lederman, 2011 among others)¹⁰. One study on the trade-growth linkage in Central, Eastern, Southern and West Africa found that a 1 per cent gain in the ratio of trade to GDP is associated with an increase of around 0.5 per cent of GDP growth in the short run and 0.8 per cent after 10 years (Brückner and

Lederman, 2012). Most conclude that trade can be a powerful driver of economic and employment growth, particularly in the long run, by boosting productivity and expanding opportunities for youth and women to participate in the labour market. But in the short run the effect is less clear, as some workers may experience job losses or wage decline, while the economy reallocates activities and resources towards trade and export-led sectors. Trade's effect on income distribution usually depends on redistributive policies.

CONCLUSIONS

While the industrial sector has contributed to economic growth in recent years, the sector's growth has been driven not by growth in manufacturing but by services. Thus African countries need to put in place policies and strategies that can enhance structural change, especially in manufacturing and higher end services, alongside efforts to raise productivity in agriculture, as it is still the largest employer and the backbone of many African economies.

Africa's growth performance has been robust and resilient but has not been on the inclusive development trajectory necessary to translate growth into employment opportunities and reduce poverty and inequality. African countries need to embark on strategies that have at their core social development in all its guises, as human capital is central to innovation and industrialization and structural change.

Given the large informal sector involved in trade and its contribution to GDP, policies are required in several areas: labour market policies (that help develop human skills and adaptability and facilitate mobility across occupations, firms, industries and regions); an efficient regulatory framework (while keeping that burden to the minimum, fostering competition and helping ensure market openness); social protection mechanisms; fiscal and credit incentives for private sector development, mainly to small and medium-sized enterprises; and, for informal enterprises, better infrastructure and increased access to public goods, technology and formal financing.

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APPENDIX 2.1

FIGURE A2.1: AGRICULTURAL GROWTH BY SUBREGION, 1961–2012

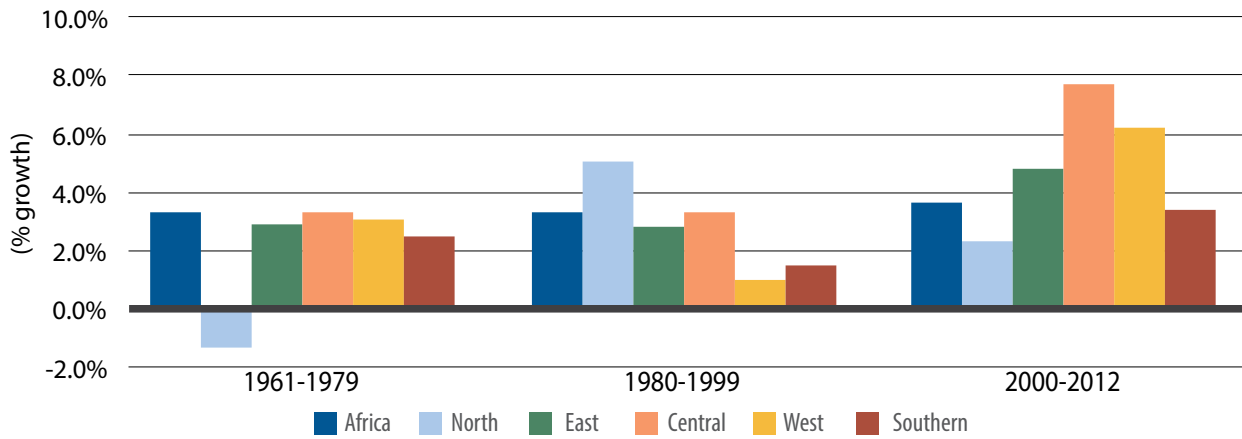


FIGURE A2.2: INDUSTRIAL GROWTH BY SUBREGION, 1961–2012

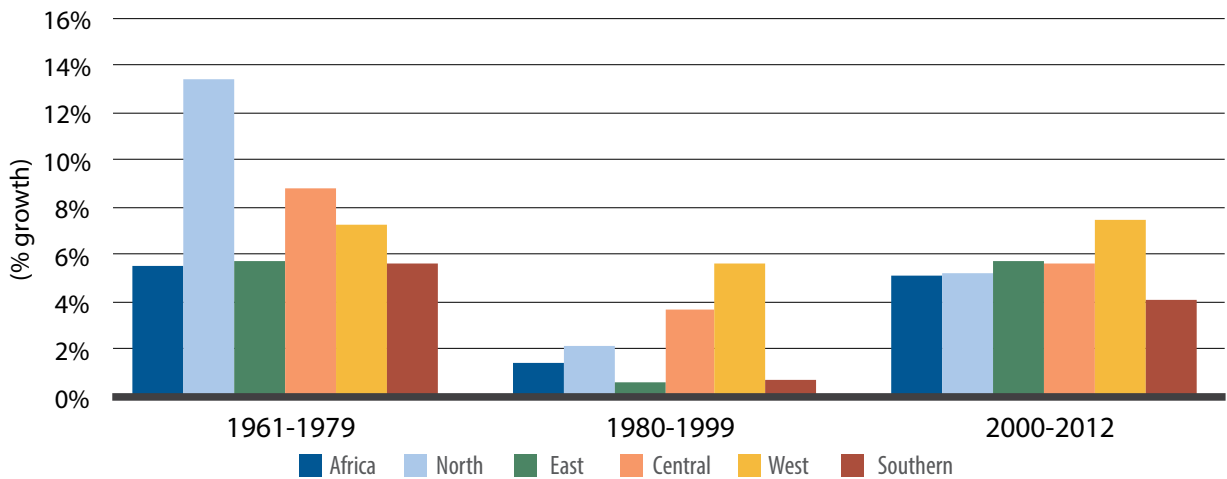
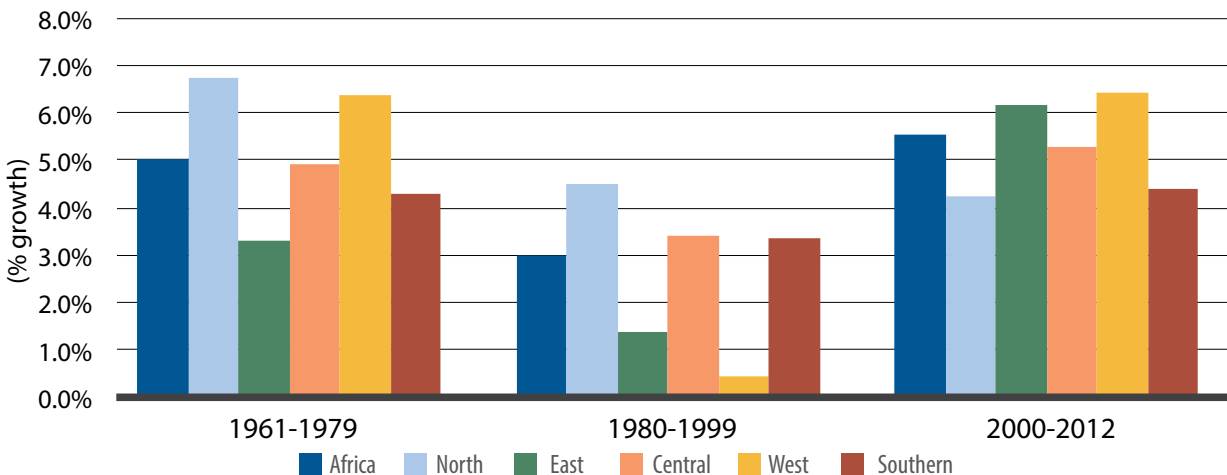


FIGURE A2.3: SERVICES GROWTH BY SUBREGION, 1961–2012



Source: Calculated based on World Development Indicators (database)

ENDNOTES

- 1 ECA estimate based on World Development Indicators (database).
- 2 ECA estimate based on World Development Indicators (database).
- 3 For mineral-rich countries, 2001 and 2012 have been removed. In 2001, manufacturing output grew by an exceptional 19.1 per cent, while industrial production experienced growth of 1.3 per cent. Therefore the mechanical contribution of manufacturing rose to 603 per cent, relative to 11 per cent in the previous year. In 2012, industrial production grew at a rate of 0.1 per cent, while manufacturing production declined by -1.7 per cent, leading to a contribution of manufacturing of -399 per cent. For mineral poor countries, 2010 has been removed, as manufacturing contribution to industrial growth was 10694 per cent due to industrial growth of 0.04 per cent. For oil exporting countries, 2010 and 2012 have been removed. In 2010, as the contribution of manufacturing was 384 per cent, relative to -8 per cent in the previous year. In 2012, the contribution of manufacturing was -4438 per cent.
- 4 Data and discussion on trade openness, export diversification and the composition of intra- and extra-African trade are in Chapters 3 and 5.
- 5 A declining share of agriculture in GDP and employment, rural-to-urban migration underpinned by rural and urban development, the rise of a modern industrial and service economy, and a demographic transition from high to low rates of births and deaths (associated with better health standards in developed and urban areas).
- 6 Only six countries meet the criteria for which elasticity data are available: Burundi, Republic of Congo, Democratic Republic of Congo, Gabon, Liberia and Nigeria.
- 7 The world average is below 0.4 (UN-Habitat, 2010).
- 8 The indicator refers to underemployment as a percentage of the total labour force or of total employment.
- 9 The ILO-standardized definition of informal employment refers to the sum of informal jobs in formal enterprises, informal sector enterprises and households producing goods for own consumption or hiring paid domestic workers (ILO, 2014).
- 10 See also Cline (2004) for a comprehensive literature review.
- 11 2010 removed for West Africa in subregional figures due to the rebasing in Nigeria, leading to outlier growth values.