

AN OVERVIEW OF URBANIZATION AND STRUCTURAL TRANSFORMATION IN AFRICA



Urbanization is one of the defining forces of the planet's 21st century development. In 1950 the urban share of the world's population was 30 per cent, but by 2050 it may well be 66 per cent. Nearly 90 per cent of the increase will be in Africa and Asia, the fastest urbanizing global regions (UNDESA, 2014).

Africa's urban transition overlaps with a demographic transition—moving from high mortality and high fertility to low mortality and low fertility—which is occurring across huge swathes of the continent.¹ Urban centres lead this demographic transition, with its associated demographic dividend a positive factor for economic development.

It is therefore indispensable to harness the forces of urbanization for Africa's sustained growth and structural transformation,² including the economic and social challenges flagged in the previous two chapters. Multi-dimensional urbanization shapes all three pillars of sustainable development:

economic development, social development and environmental protection (UNDESA, 2014). And while urbanization is not a sufficient condition to generate economic growth, with the right urban form—the spatial layout of cities—and patterns, it can bring major productive advantages to industrial value chains. Managing the urban transition is thus essential for economic growth and the well-being of Africa's urban and rural populations.

Deliberate policy responses are required to optimize urbanization and minimize challenges. They involve balancing agglomeration economies and diseconomies to exploit urban scale and externalities, preventing slum formation by forward planning and investing in infrastructure and public goods and creating jobs to absorb swelling urban populations including for women and young people. These interrelated challenges and opportunities are complex and best handled through inter-sector and multi-level governance. Policies need to be coordinated through national development planning frameworks to link urban space and economic development—as well as the public and private sectors—and to be supported by investment and urban planning at national and local levels.

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The three thematic chapters of the 2017 ERA (3, 4 and 5) aim to extract lessons and policies—grounded in theory and practice—from the evidence on urbanization's role in promoting industrial development and structural transformation in Africa. They raise, in broad terms, the policy issues fundamental to establishing and overseeing productive urban systems and present the trade-offs facing policymakers.

This chapter presents an overview of the mega-trends of urbanization and structural transformation with their significance for Africa's development, outlining the synergetic ties between the two processes and then debunking some of the old "myths" about urbanization. Chapter 4 examines in

Managing the urban transition is essential for economic growth and the well-being of Africa's urban and rural populations.

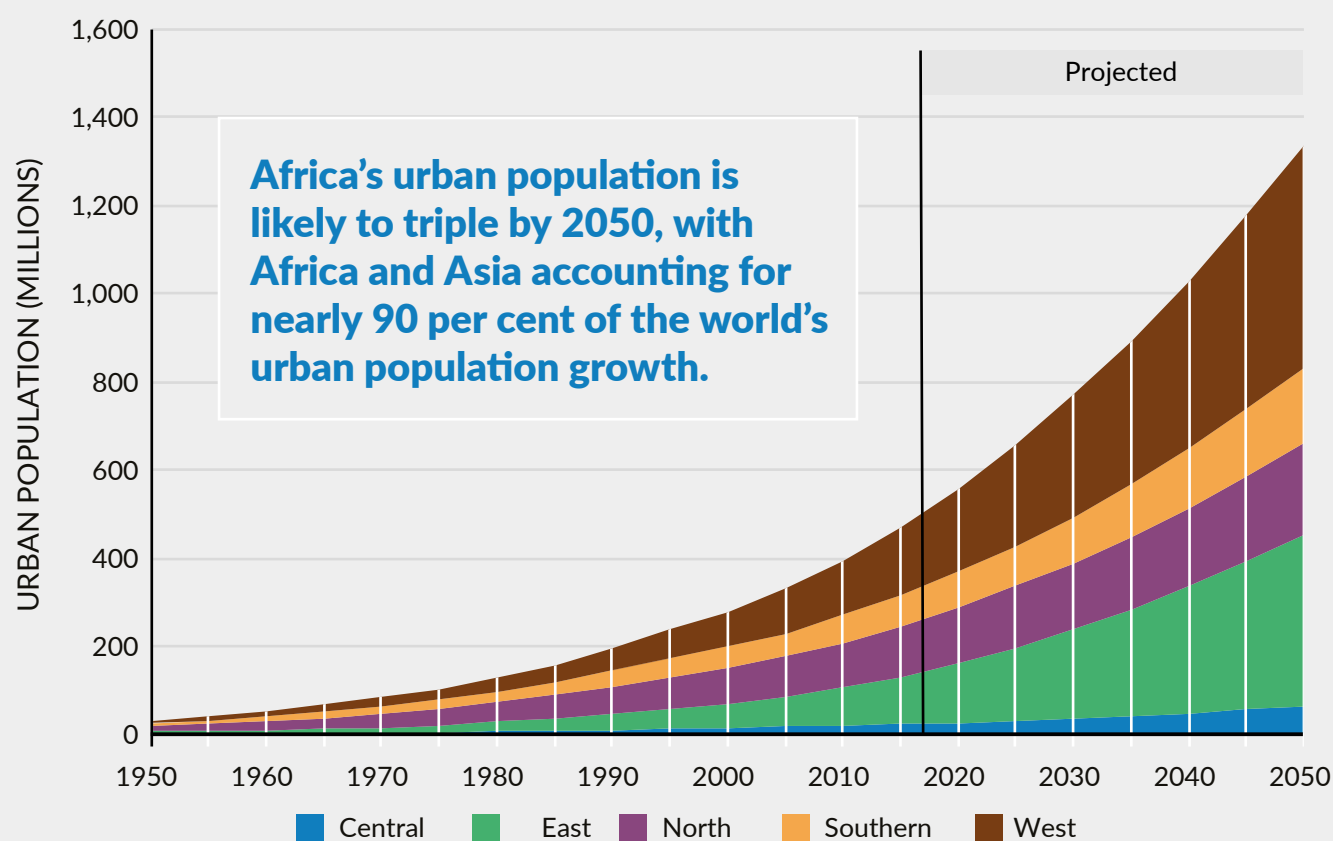
more detail the nexus between the two elements, using a conceptual framework of drivers, enablers, barriers and policy levers. Chapter 5 highlights country experiences related to the urbanization–industrialization nexus from case studies, showing how urban demand, productive systems of cities and productive cities themselves promote industrialization. Looking to the future, all three chapters present policy implications.

3.1 URBANIZATION IN AFRICA: TRENDS, PATTERNS AND DRIVERS

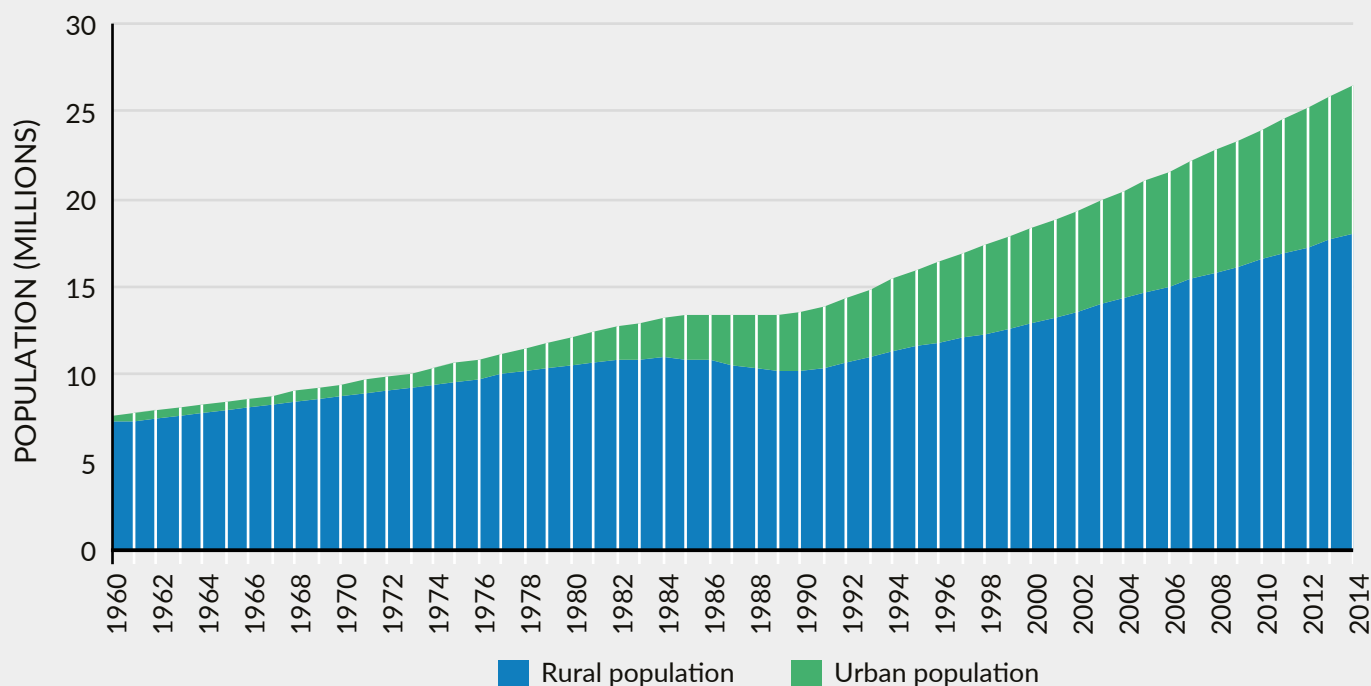
The world is increasingly urban, and Africa, along with parts of Asia, is now an epicentre of urbanization. Africa's urban populations have been growing since

the 1950s (figure 3.1), hitting 40 per cent of the continent's total in 2014 and projected to reach 56 per cent by 2050 (UNDESA, 2014). Urbanization

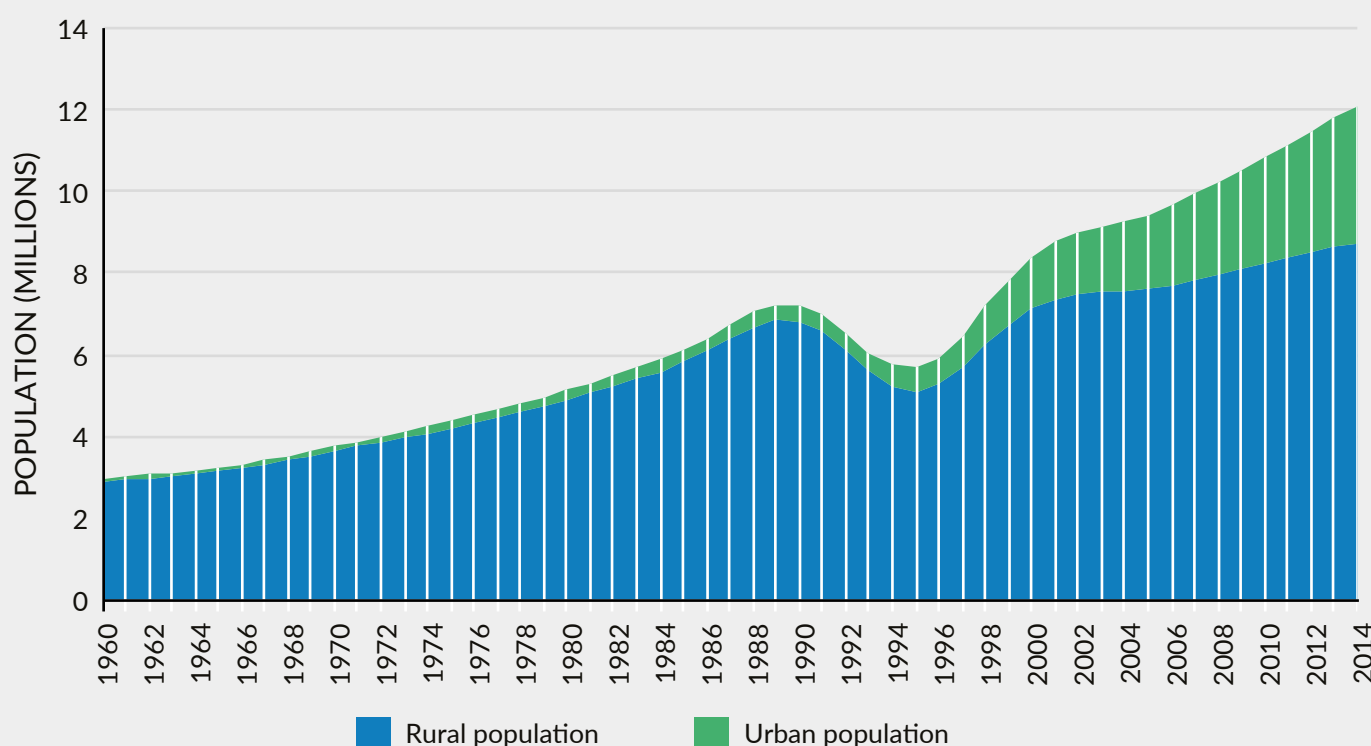
FIGURE 3.1 Urban populations by African subregion, 1950–2050



Source: Based on UNDESA (2014).

FIGURE 3.2 Mozambique's urbanization, 1960–2014

Source: World Development Indicators.

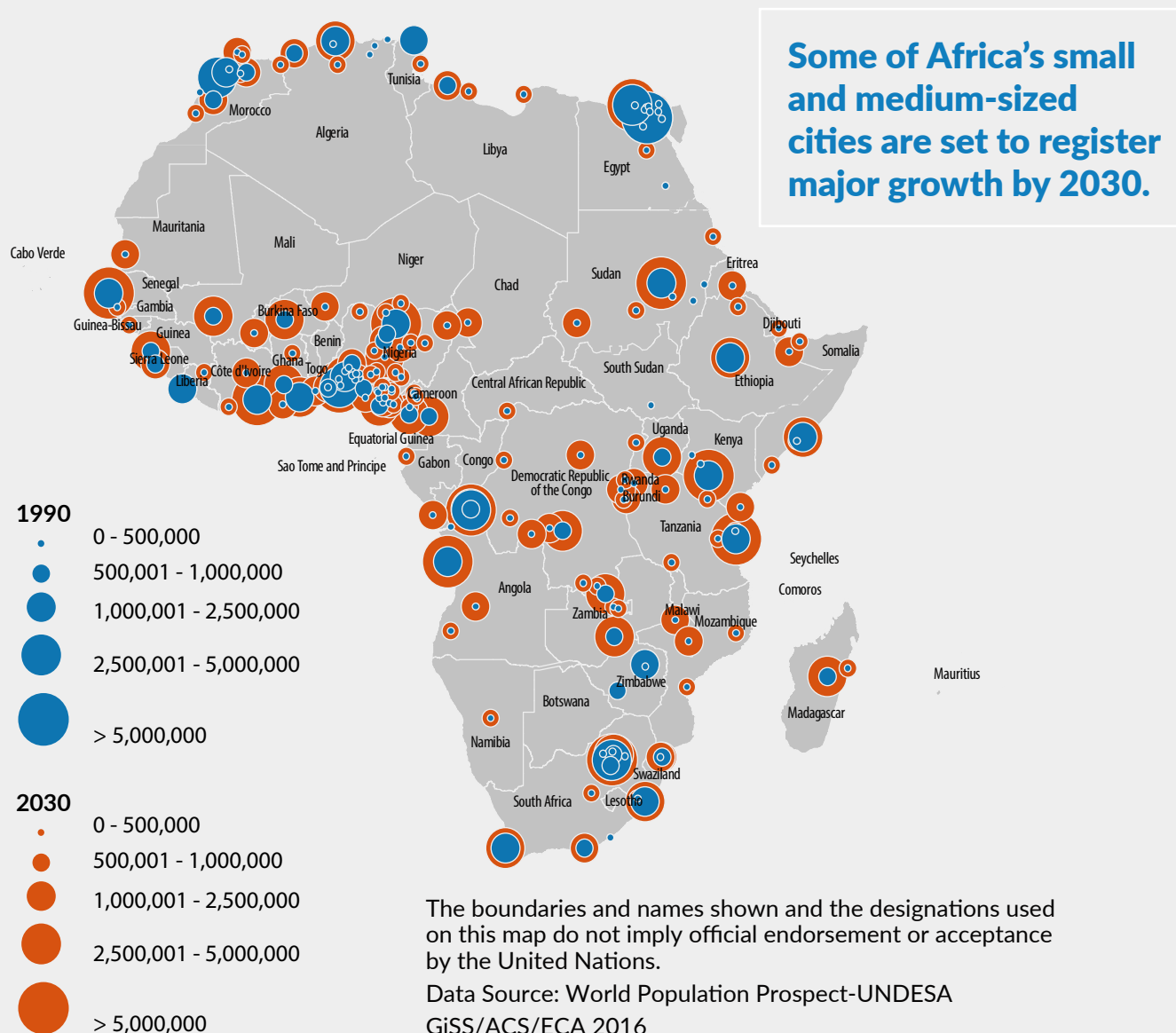
FIGURE 3.3 Rwanda's urbanization, 1960–2014

Source: World Development Indicators.

was rapid in the post-independence period, slowed in the 1990s and picked up again in the 2000s (UN-Habitat, 2010a). Africa's urban population is likely to triple by 2050, with Africa and Asia accounting for nearly 90 per cent of the world's urban population growth (UNDESA, 2014).

Urbanization “occurs now often in a span of about 30 years, as opposed to the more leisurely pace of urbanization in today's developed countries which played out over 100–150 years. Rapid urbanization is traumatic...” (Henderson, 2010, p. 16). Urbanization

FIGURE 3.4 Urban agglomerations in Africa, 1990 and 2030



in Africa excluding North Africa went from 15 per cent in 1960—around the same as Europe in the 17th century—to 38 per cent today, which is higher than South Asia. The number of urban residents in Africa nearly doubled between 1995 and 2015 and is projected to almost double again by 2035 (Barofsky, Siba and Grabinsky, 2016).

There has also been a shift globally in the urbanization-income nexus: countries now have a higher level of urbanization than countries at the same income in the past. Globalization and imports of cheap food have made urbanization possible without a domestic agricultural surplus (Fox, 2014).

Naturally, African subregions and countries are urbanizing at different speeds (chapter 2). East

Africa is the least urbanized and urbanizing fastest, while Southern Africa is the most urbanized and moving more slowly. The trends in Mozambique and Rwanda, for example, reflect their economic dynamics, policies and conflicts (figures 3.2 and 3.3).

Eight countries are largely rural with less than one quarter of their populations living in urban areas. However, the least urbanized countries are forecast to double their urbanization in 35 years (UNDESA, 2014). In contrast a few countries are experiencing slow and even negative urbanization, including Mauritius, Swaziland and Zimbabwe.

Countries differ in their spatial pattern of urban growth. Most have a higher share of their urban

population in their largest city (“urban primacy”) than other regions of the world, and a few have faster growth in their largest city than in their other urban areas, including Burkina Faso, Cameroon, Republic of Congo and South Africa. However, quite a few countries see most urban growth outside the largest city, with decreasing primacy particularly apparent in Benin, Gambia, Liberia, Rwanda and Sierra Leone.³

Just as most of the world’s fastest-growing cities are medium-sized agglomerations with populations of less than 1 million (UNDESA, 2014), some of Africa’s small and medium-sized cities are set to register major growth by 2030 (figure 3.4). In Malawi the capital city and 24 other urban centres are growing faster than the national rate of population growth, while in Mozambique 16 urban centres are growing faster than the capital and some major cities (Potts, 2014).

Four drivers contribute to urbanization: net rural–urban migration within a country, international migration, natural growth (reflecting mortality and fertility rates) and reclassification of rural towns to urban areas. Early theories of Africa’s urbanization centred on the role of migration, arguing that high wage differentials between urban and rural areas drove migration, even with high urban unemployment, because the urban wage was attractive even if the chances of getting an urban formal sector job were low (Harris and Todaro, 1970). However, there is now a general consensus that the role of migration in Africa’s continued urbanization has diminished in favour of natural demographic growth (Dyson, 2009; Fox, 2014; Jedwab, Christiaensen and Gindelsky, 2014). Reclassification may also have a role in some countries (Awumbisa, 2014): Uganda, for example, in 1986 had 33 districts but now has 111 districts, all with administrative and commercial towns.

3.2 URBANIZATION’S LINKS TO RURAL AND AGRICULTURAL ECONOMIES

Because a large share of Africa’s populations still live in rural areas, agriculture and rural development are important for structural transformation. A long-term development process, it is at a very early stage in most African countries, particularly those with large rural populations. Three components are critical for Africa to achieve structural transformation: productivity gains in agriculture; expansion of employment in industry and services at a rate fast enough to absorb the surplus in agricultural labour; and links between domestic agricultural production and urban food consumption.

Economic models have shown that reducing rural poverty and increasing agricultural productivity

are closely tied to structural transformation: a faster process is associated with a faster rise in agricultural productivity and a faster decline in the share of agricultural output and labour force within the economy, leading to a more developed, higher-productivity and more urban economy (Timmer and Akkus, 2008). Agricultural productivity can also contribute to the productivity and competitiveness of urban sectors because the price of food affects the cost of labour: food in African cities is disproportionately expensive, at around 35 per cent more than in comparator countries (Nakamura et al., 2016), and labour in African cities is also more costly than expected, based on GDP (Iarossi, 2009).

Agricultural productivity can also contribute to the productivity and competitiveness of urban sectors because the price of food affects the cost of labour.

3.3 ECONOMIC, SOCIAL AND ENVIRONMENTAL IMPACTS OF CITIES' GROWTH

THE BENEFITS OF AGGLOMERATION ECONOMIES

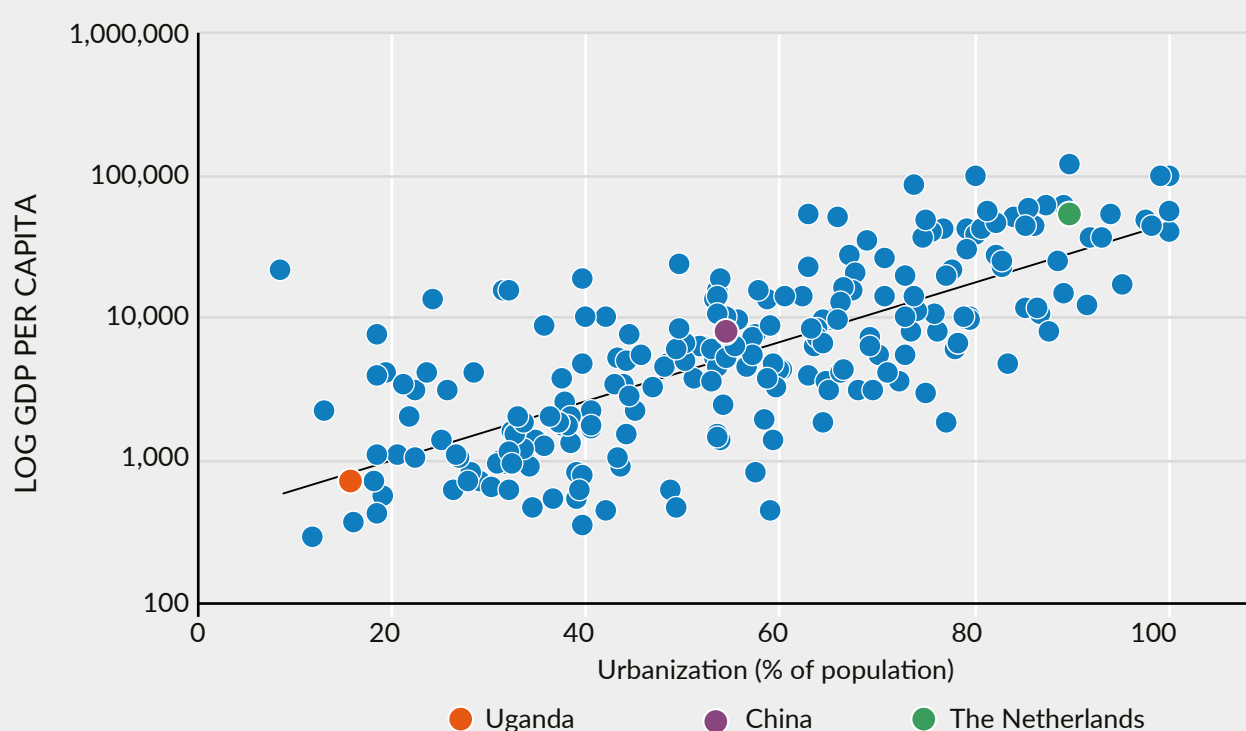
Agglomeration offers major economic benefits, but Africa's urbanization is often characterized by poverty and informality, with residential and social segregation creating poverty traps and reducing economic mobility. Urban inequality and informality are especially problematic when economic growth is largely jobless, particularly for economies reliant on natural resources, which create "consumption cities" (see section 3.10).

But on balance, the evidence is clear and broad-based for the economic benefits of urban space, with a positive association between per capita GDP and urbanization. "The simple bivariate regression below explains at least 55 per cent of variability across countries, suggesting that urbanization is a very strong indicator of all aspects of productivity growth over the long run, although clearly this simple statistical relation does not establish causality" (Annez and Buckley, 2009, p. 3).

The urbanization–income correlation (figure 3.5) has many contributing factors with causation going in both directions: economic opportunities arising in cities stimulate urban population growth, but the clustering of populations and economic activities in cities also holds economic potential. So urbanization alone does not necessarily drive growth—the concentration of economic actors in space enables substantial productive advantages that can contribute to growth, depending on the form that urbanization takes (Henderson, 2010; Turok, 2014).

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FIGURE 3.5 Urbanization and GDP per capita across countries worldwide, 2014



Source: World Development Indicators.

The economic advantages of urban clustering are rooted in economies of scale, which operate both within firms and between them (Harvey, 2009; Quigley, 2008; UN-Habitat, 2013). Economies of scale within firms arise as cities offer larger markets and firms spread fixed costs over more outputs. Economies of scale between firms, also known as agglomeration economies, arise from the proximity of economic agents and their interaction in the factor and product markets.⁴

Agglomeration economies are often described as the benefits of “sharing, matching and learning” (Harvey, 2009; AfDB, OECD and UNDP, 2016). Sharing occurs when firms and urban inhabitants share indivisible facilities and achieve joint economies of scale in local infrastructure, services, risks and the production of specialized inputs and

final goods. Matching arises from larger pools of employees, firms, buyers and suppliers, which helps each firm or individual find the specific attributes demanded. Learning is promoted by cities as the density of economic actors facilitates the diffusion of knowledge and technology (Duranton, 2009).

There are many ways to describe and categorize the benefits arising from agglomeration economies. A distinction is typically made between urbanization economies (benefits from clustering of diverse economic activities) and localization economies (those from clustering of firms in the same sector). Beyond this basic distinction, authors have classified agglomeration economies in various ways (box 3.1).

These mechanisms of agglomeration economies bring about three general outcomes: they

BOX 3.1 CATEGORIZING THE BENEFITS OF AGGLOMERATION ECONOMIES

From O’Sullivan (2007):

- **Sharing intermediate inputs**, especially when inputs are highly specialized or need to respond to rapidly changing demand.
- **Sharing a labour pool**, allowing individual firms to expand or reduce their labour force as needed in the context of a large, stable labour market.
- **Labour matching**, that is, better matches between worker skills and firm requirements and reduced training costs.
- **Knowledge spillovers**, that is, the conscious or unconscious transfer of ideas and techniques first described by Marshall (1920).

From Quigley (2008):

- **Specialization** in the production of intermediate products.
- **Transactions costs and complementarities**, that is, better matches between workers and skills requirements and between inputs and production requirements.
- **Education, knowledge and mimicking**, for example the diffusion of ideas between workers and between firms.
- **The law of large numbers**, that is, more predictability and certainty arising from the statistical fact that larger groups of economic actors will more precisely adhere to averages.

From Harvey (2009):

- **Shopping**, that is, shoppers are attracted to places with many sellers.
- **“Adam Smith” specialization**, with outsourcing and increased productivity.
- **“Marshall” labour pooling**, that is, workers with specialized skills are attracted to an employment cluster.
- **“Marshall-Arrow-Romer” learning by doing**, that is, learning from repeated actions and knowledge spill-over between firms.
- **“Jane Jacobs” innovation**, that is, learning from observation of diverse activities in the same place.
- **“Adam Smith” division of labour**, with specialized skills possible in the context of many buyers.
- **“Romer” endogenous growth**, that is, self-reinforcing effects of clustering and locational attractiveness.
- **Pure agglomeration**, spreading the fixed costs of infrastructure over more taxpayers.

Agglomeration economies are often described as the benefits of “sharing, matching and learning”.

generate increasing returns to scale that arise from geographical concentration and co-location—clustering of firms and workers is central; via cumulative causation, people and firms are attracted to places where there is already a concentration of activities, thus reinforcing and propelling existing agglomerations; and path-dependency: a single firm or producer will not find it profitable to move from an existing cluster (Overman and Venables, 2005).

Agglomeration economies deliver a productive advantage to firms and spur innovation. Large, diverse cities in particular facilitate the sharing of knowledge, entrepreneurship and competition. They play a “nursery” role and enable firms to incubate. While some firms succeed and grow, less productive firms close, allowing for capital and labour to be reallocated. Creative destruction and the churning process of firms and factor inputs underlie the role of cities as engines of growth (Duranton, 2009).

Though most studies examine cities in developed economies, some demonstrate the economic power of agglomerations in developing countries.⁵ Studies considering city size, industry size and employment density estimate elasticities of productivity ranging from 0.01 to 0.2, with most under 0.05 (UN-Habitat, 2013). Although findings consistently suggest the presence of agglomeration economies, the nature and extent differ between contexts and types of firms; therefore, generalized findings on agglomeration economies should not be blindly applied to a specific location or sector. Evidence comparing countries suggests that low-income countries could benefit greatly from agglomeration economies (Brühlhart and Sbergami, 2008; Newman et al., 2016).

SOCIAL IMPACTS

On social issues urbanization offers many benefits and is correlated with higher Human Development Index scores in Africa (Njoh, 2003). Access to education and to improved water and sanitation is typically higher in urban than rural areas (UN-Habitat, 2010b; UNDP, 2015), and such services are less costly to provide in urban settings

Urbanization is correlated with higher Human Development Index scores in Africa.

because of economies of scale. However, most African cities still have major social inequalities: the poor, informal sector workers and women bear the brunt of negative externalities,⁶ including those related to safety, pollution and other health hazards. As an increasing share of the population resides in cities, managing urban development with a pro-poor perspective will be critical to achieve inclusive development outcomes.

Environmental risks of urban economic growth can be reduced through foresight and investment, guiding cities to greener patterns of development.

ENVIRONMENTAL EXTERNALITIES AND OPPORTUNITIES FOR GREENER GROWTH

Environmentally, urbanization can offer benefits, reducing travel distances and preserving land. However, urban agglomerations and industrial concentration in cities generate environmental costs and negative externalities. Khan (2006) explores the trade-offs and choices facing cities using the Environmental Kuznets Curve, which depicts a bell curve relationship between environmental quality and per capita income. At low levels of development or per capita income, cities lack the resources to invest in environmental amenities. Households and firms only begin demanding high environmental quality when they reach a threshold of per capita income high enough to afford paying for environmental amenities (Khan, 2006). Indeed, fast economic growth, as seen in Chinese cities for example, can harm the environment. Yet these impacts can be mitigated or even prevented if urbanization is well managed and planned. Dense urban development preserves land, and cities with a compact, connected urban form and good public transport are positively associated with energy efficiency and low carbon emissions. So, while the urban development pressure exists and may result in severe negative environmental externalities, especially in the short run, environmental risks of urban economic growth can be reduced through foresight and investment, guiding cities to greener patterns of development.

URBAN FORM: A CROSS-CUTTING IMPACT

Cross-cutting to the economic, social and environmental impacts of urbanization is urban form. Land use and transportation are major determinants of urban economic competitiveness and the social and environmental impacts of urban development. Policies should aim to provide a well-planned,

connected network of streets with space for non-motorized modes of transport and for priority use such as mass transit and freight. Heading off land and property market constraints early, including preventing speculation, can help forestall urban problems and enable more compact development. Well-planned, serviced buildable plots can also help to keep cities affordable.

3.4 INDUSTRIAL DEVELOPMENT AS A PATHWAY TO STRUCTURAL TRANSFORMATION

Countries that have succeeded in structural transformation are urbanized and feature a consumption and production pattern driven by productive industrial and service sectors. They have relocated resources (including labour) from low- to high-productivity sectors, often involving industrial development.

Structural transformation could dramatically increase the income levels of poor countries.

A key element of structural transformation involves movement of labour out of rural activities and into urban ones (AfDB, OECD and UNDP, 2016; Rodrik, 2015). Historically, as economies develop and income rises, the share of income that people spend on food declines, and demand for manufactured products rises.⁷ At a later stage of development, a similar process of shifting demand takes place favouring services. Such changes in demand and trade are accompanied by changes in economic structure, with the share of employment in agriculture declining and that in industry or urban-based services rising. The process is generally accompanied by increasing accumulation of human and physical capital and diversification (Chenery, 1982). The shift in sector employment from agriculture to industry and to services is accompanied by productivity increases.

This rising productivity in all sectors, including rural ones, eventually brings rural-urban convergence in productivity and living standards (Harvey, 2009).

In the classical two-sector model of Lewis (1954), which looks at agricultural versus non-agricultural activities, labour-intensive manufacturing grows on the back of surplus labour released from agriculture. The wage differential between the “modern” urban sector and the “traditional” rural sector narrows and converges as the surplus population from agriculture continues to enter the modern sector. The profit created in industry is reinvested in the same sector, generating a virtuous cycle of growth. Similarly, in the Harris-Todaro Model of a dual urban-rural economy (1970), the positive difference between the expected urban or industrial real income and the agricultural product per worker drives migration to cities and structural transformation. But many who migrate to cities, attracted by the prospect of higher incomes, fail to secure urban formal jobs and end up in the informal economy. In both theories the urban income differential resulting from productivity advantages of manufacturing spur such transformation (Alvarez-Cuadrado and Poschke, 2011).

Structural transformation could dramatically increase the income levels of poor countries. In developed economies much of the productivity increase comes from innovation and technology upgrading in firms, but in developing countries, it will more likely come from relocation of resources between sectors and between firms within the

Taking developing countries as a whole, as much as one-fifth of the productivity gap that separates them from advanced countries would be eliminated by the kind of reallocation of labour to largely urban-based economic sectors.

same sector. This is because of the significant productivity differential between sectors and the wide dispersion of productivity among firms within sectors in these countries, making structural transformation a powerful economic driver.

A study by McMillan and Rodrik (2011) estimates the impact of developing countries moving to the economic structure of rich countries (that is, the same sectoral distribution of their labour force), without changing their current level of average productivity of their formal industrial and service sectors. The potential gains are large, particularly for some African countries: Ethiopia's productivity would increase six-fold, Malawi's seven-fold and Senegal's 11-fold. Taking developing countries as a whole, as much as one-fifth of the productivity gap that separates them from advanced countries would be eliminated by the kind of reallocation of labour to largely urban-based economic sectors.

In cities knowledge and ideas generate increasing returns to scale. Firms invest in research and development to reap the benefits of productivity, increase their market share and maximize their profits. Relative geographical concentration of research and innovation to production in most industries and a strong association between diversity of employment in technologically related industries point to the role of cities in effecting innovation (Duranton, 2015).

But with low investment in research and development in developing countries and narrow scope for new products and processes, firms and employees enhance their productivity by learning by doing. Knowledge is transferred and technology diffused through trade and foreign direct investment. Urbanization facilitates this process through three potential channels. First, in a dynamic framework, cities accumulate human capital through learning and agglomeration, and

as workers move between firms, industries and cities, knowledge is diffused, benefiting more of the economy. Urban density and proximity are thus important for spreading knowledge (Glaeser and Resseger, 2010). Second, cities play a "nursery" role and enable start-up firms to explore and experiment with new ideas. Finally, cities facilitate the churning of firms through market forces and competition, allowing resources to relocate from less- to more-productive firms, enhancing the economy's average productivity (Duranton, 2009; Duranton, 2015).

Industrial development is not only the pathway but also the corollary to structural transformation. Unlike the service or agricultural sectors, manufacturing exhibits unconditional convergence, meaning that its productivity will catch up with that of developed economies and is not conditional on country-specific economic variables. Since 1960, output per worker in manufacturing in developing countries has increased to levels of advanced economies, regardless of country-specific or regional factors. This underlines African manufacturing's potential to generate growth (Rodrik, 2013).

Unconditional convergence in manufacturing opens up two channels for economy-wide growth. The first is productivity growth within manufacturing itself, which contributes disproportionately to the growth of the economy. The second is structural transformation driven by expanding employment in manufacturing. Because manufacturing has the potential to converge unconditionally to high levels of productivity, a shift in labour out of agriculture into manufacturing can be strongly growth enhancing. However, the effect depends on the size of the manufacturing sector, its growth rate and the productivity level of the economy itself. In a poor country the differential growth of manufacturing is high, but its total effect may be limited by the small size of the sector and low employment growth, as in African countries (Newman et al., 2016; Rodrik, 2013).

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3.5 LINK BETWEEN URBAN POPULATION GROWTH AND INCOME IN AFRICA

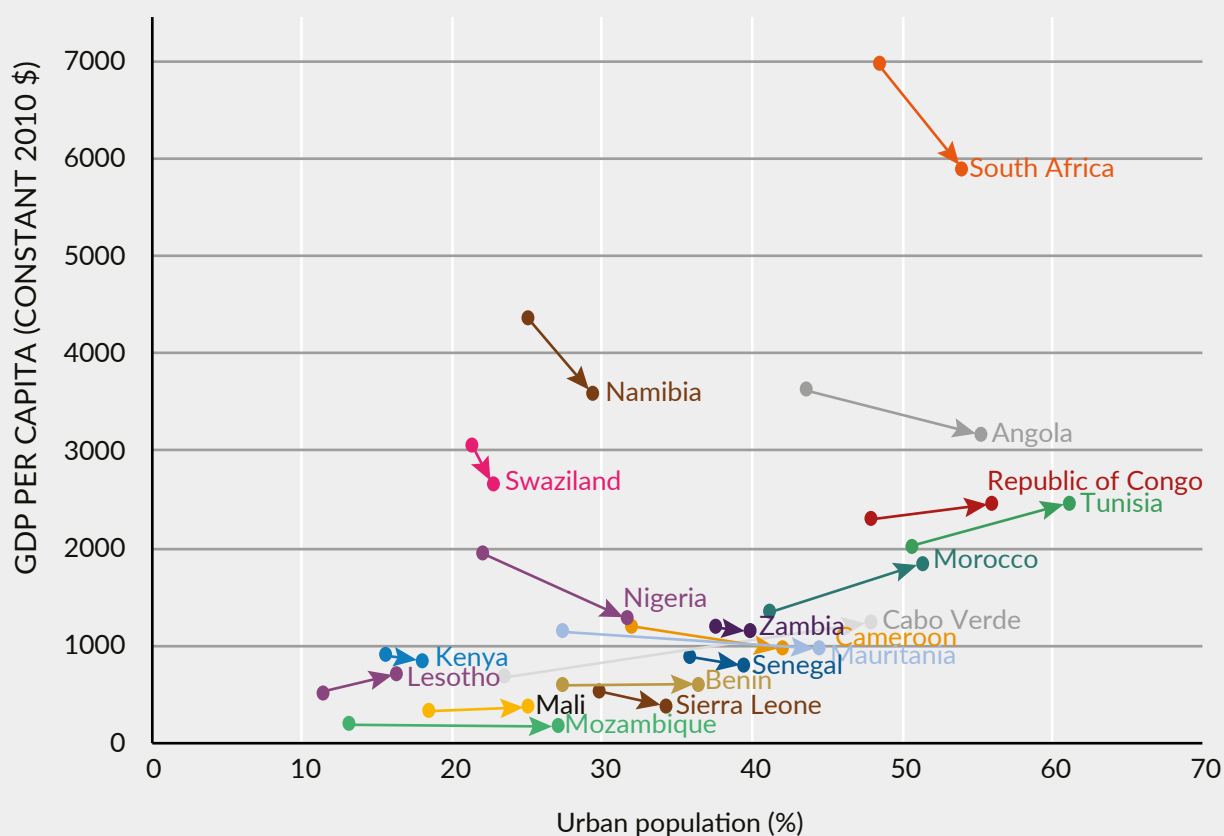
The relationship between urbanization and income appears generally weaker in Africa than in other parts of the world, generating a narrative of “urbanization without growth” (World Bank, 2001; Fay and Opal, 2000). That Africa’s urban development is different is highlighted by a comparison with Asia, which has similar urbanization rates at higher incomes: “Compared with other developing regions, the continent is urbanizing while poorer” (Freire, Lall and Leipziger, 2014, p. 5).

In the 1980s and 1990s this phenomenon was troubling for many African countries (figure 3.6);

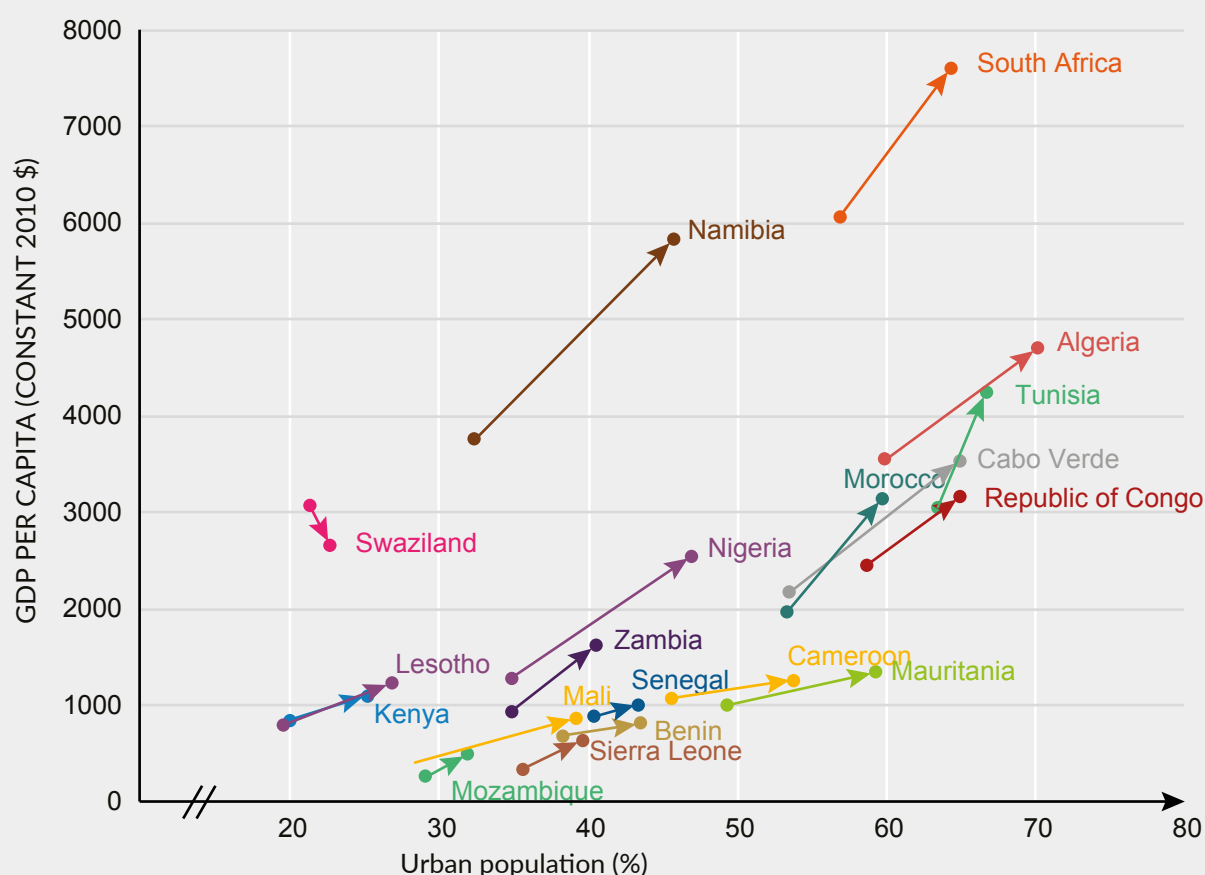
Since 2000, growth and income have rebounded in many of the same countries, reviving the link between urbanization and income.

however, since 2000, growth and income have rebounded in many of the same countries, reviving the association (figure 3.7). This is attributable to commodity price rises, economic reforms and improved governance (Rodrik, McMillan and Verduzco-Gallo, 2014).

FIGURE 3.6 Urbanization and GDP per capita, 1980–1994, selected African countries



Source: World Development Indicators.

FIGURE 3.7 Urbanization and GDP per capita, 2000–2014, selected African countries

Source: World Development Indicators.

3.6 URBAN DEVELOPMENT AND PREMATURE DEINDUSTRIALIZATION

The experience of many African countries in structural transformation has been unfavourable. Globally, the share of manufacturing in total output tends to rise with per capita income until countries reach upper-middle-income status, and then declines as services become more prevalent at higher incomes (Newman et al., 2016). In Africa manufacturing and urbanization were going hand in hand during the early post-colonial period of 1960–1975, but manufacturing then declined, limiting structural transformation and causing growth to stagnate. Since the mid-1990s, growth

has rebounded, but without strong employment growth in manufacturing (de Vries, Timmer and de Vries, 2014). Between 2000 and 2015, most African countries recorded a decline in their share of manufacturing value added in GDP, averaging 2.3 percentage points.⁸

McMillan and Rodrik (2011) report that structural transformation contributed negatively to Africa's growth in the 1990s, as labour moved to less productive sectors. This was in part a result of increased global competition that led some

African countries are experiencing “premature deindustrialization”.

manufacturing firms to close and others to shed labour to reduce costs. The loss of jobs in high-productivity sectors produced an urban labour force that could only be absorbed in low-productivity informal activities and services (McMillan and Rodrik, 2011).

African countries are seeing their share of manufacturing peak at an earlier stage in their development than today’s advanced economies and failing to achieve the development and productivity benefits of a full manufacturing phase—sometimes called “premature deindustrialization.” All developing countries are challenged (especially Africa’s, but with commensurate opportunities—box 3.2). Countries are running out of industrialization opportunities sooner and at much lower levels of income than the early industrializers did. “Industrialization peaked in European countries like the United Kingdom, Sweden and Italy at income levels of around \$14,000, in 1990 dollars. India and many African countries other than North Africa reached their peak manufacturing employment shares at income levels of \$700” (Rodrik, 2015, p. 15). Instead of manufacturing, labour is shifting into services, but Africa’s service sector has been expanding faster in jobs than value added, suggesting that the marginal productivity of new labour in this sector is low

The continued trend of urbanization in the face of deindustrialization has resulted in cities with poorer populations and higher informality.

and possibly even negative (Newman et al., 2016). The continued trend of urbanization in the face of deindustrialization has resulted in cities with poorer populations and higher informality.

This decoupling of urbanization and industrial development is troubling, because “industrialisation is the most efficient path to sustained growth and economic convergence” (AfDB, OECD and UNDP, 2016, p. 152) and “deindustrialization removes the main channel through which rapid growth has taken place in the past” (Rodrik, 2015, p. 5). Service-led growth could in theory lead the shift to higher-productivity jobs and to faster income growth, but most of the productive services that can play this role are skill intensive, while the bulk of service employment in African countries is neither technologically dynamic nor tradeable (Rodrik, 2015).

In Africa, moves to industrialize agriculture are also essential for its structural transformation. Agriculture is the mainstay for a large share of the population and an important contributor to GDP and yet its productivity is less than 56 per cent of the global average (UNECA, 2013). Improving its productivity through industrial production methods and expanded value chains for agri-business and agro-processing will help to provide food surplus for cities and to supply agricultural inputs and labour to industry. Industry can also induce the use of technology and expansion of agricultural production by signalling increased demand for food and agricultural raw materials through urban markets and agro-industrial supply chains.

BOX 3.2 AFRICA’S OPPORTUNITIES FOR HIGHER LABOUR PRODUCTIVITY

Africa is the region that has the most to gain from structural transformation and growth in manufacturing. It has the greatest differences between sectors in output per worker. The average ratio of the highest to lowest productivity sectors in Africa is more than twice that for Latin America and Asia. Moreover, output per worker in manufacturing in Africa is six times that of agriculture.

All these factors show enormous potential for movement of labour to urban economic sectors to boost growth of income per person in Africa—a potential that has yet to be tapped (Newman et al., 2016).

3.7 NATURAL RESOURCE-BASED GROWTH AND CONSUMPTION CITIES

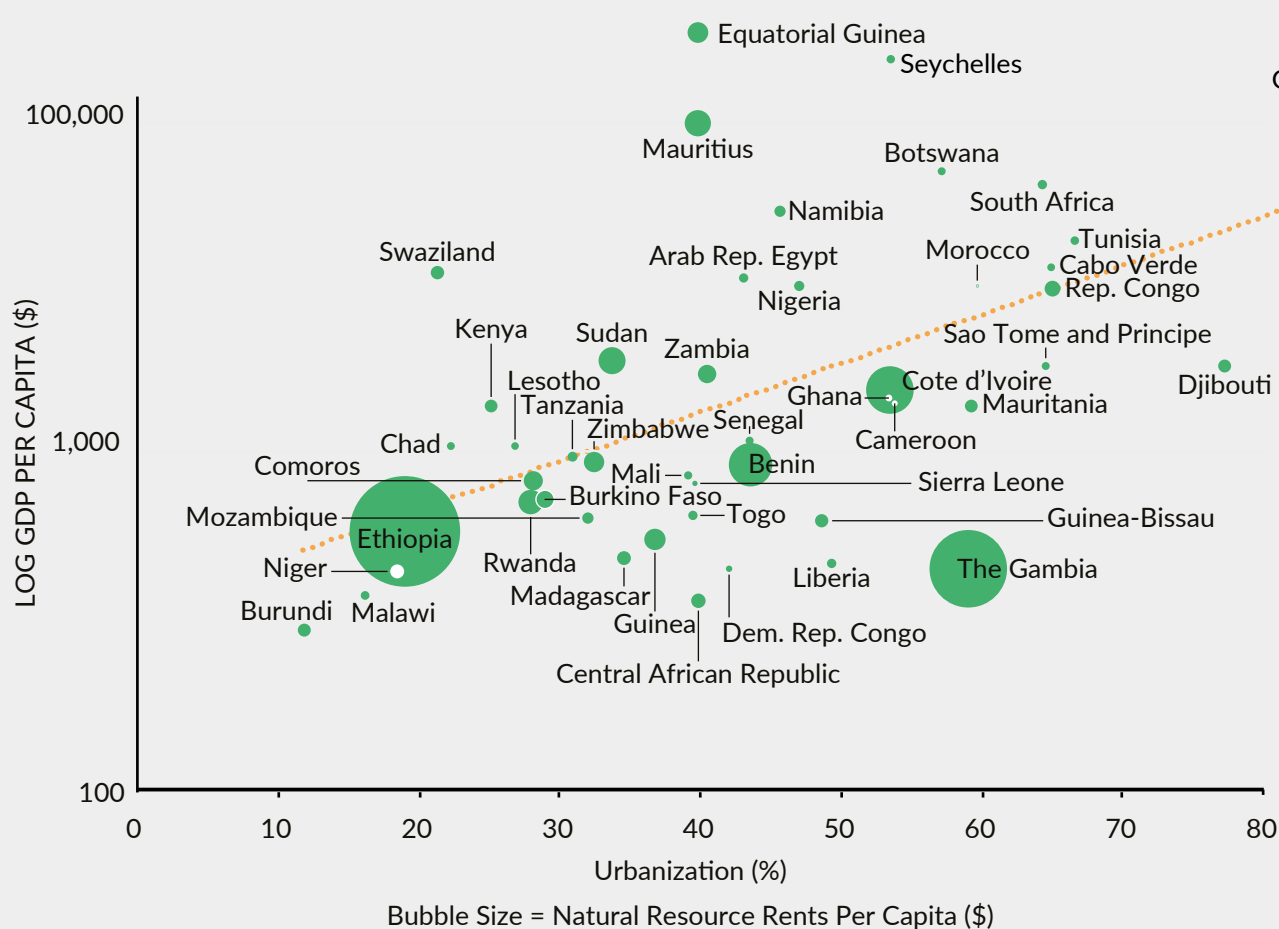
Failure to achieve growth-enhancing structural transformation is particularly common among countries with high natural resource exports. “There is a very strong and negative association between a country’s reliance on primary products and the rate at which structural transformation contributes to growth. Countries that specialize in primary products are at a distinct disadvantage” (McMillan and Rodrik, 2011, p. 25). This arises partly due to Dutch disease (where labour-poor exports crowd out employment in higher value added sectors) and the difficulty in managing volatile public revenue streams (Collier, 2007). This disadvantage associated with resource endowment (Fukunishi, 2004), combined with colonial histories focused on developing natural resource sectors (AfDB, n.d.), is seen in figure 3.8, which shows that African

African countries with better economic performance at a given level of urbanization tend not to have high natural resource rents.

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At city level, natural resource dependency feeds into the disconnect between urbanization and structural transformation—prompting the term “consumption cities” (Jedwab, 2013; Gollin, Jedwab and Vollrath, 2014). Consumption cities arise from the pull of natural resource earnings that generate

FIGURE 3.8 Urbanization, GDP and natural resource rents in Africa, 2014



Source: World Development Indicators.

income but not a broad base of formal jobs, leading to “premature urbanization,” with employment growth in the non-tradeable service sector, often with a strong informal component (Gollin, Jedwab and Vollrath, 2014). Consumption cities also tend to be disproportionately expensive (Turok, 2013).

The consumption cities idea underscores the importance of structural transformation and specifically labour-intensive industrial development, as growth may fail at broad-based job creation. The source of income and growth is very important. Countries can urbanize, as in some resource-rich

countries, by importing food and tradeable goods and by creating consumption cities that shift workers from tradeable to non-tradeable sectors, creating a force of productivity-reducing reverse structural transformation (Gollin, Jedwab and Vollrath, 2014). The upshot is that the benefits of urbanization lie in job-rich industrial sectors and agglomeration economies that support them, but Africa has yet to generate decent jobs at the required scale, compelling job seekers to turn to the informal sector, especially in urban areas.

3.8 GROWTH FOR ALL

A key factor in translating economic growth into social and human development and for achieving inclusive growth is the creation and expansion of decent work. Africa has a large, poor and increasingly urban population and is seeing growing inequality, for which reasons broad-based and job-rich economic growth and structural transformation centred on industrial development are crucial.

EMPLOYMENT AND POVERTY REDUCTION

The relationship between economic growth and employment in Africa is weak (chapter 2). Africa's economic growth since 2000 has been positive, but with weak capacity to create formal jobs—even in the fastest-growing economies the employment intensity of growth is low—the default employment option is the informal economy for many Africans. Only a quarter of African young men and 12 per cent of African young women end up in wage-earning jobs before turning 30 (AfDB, 2012).

Lacking many formal sector and manufacturing jobs, African cities are dominated by the informal economy. Sixty-one per cent of men and 74 per cent of women working in non-agricultural sectors are informally employed, with a larger share (60 per cent) of women in own-account self-employment (Vanek et al., 2014). Globally, the share of informal employment is the highest in Africa excluding North

African cities are dominated by the informal economy. Sixty-one per cent of men and 74 per cent of women working in non-agricultural sectors are informally employed.

Africa. A survey of seven Francophone African cities revealed that the average income of workers in private formal enterprises is three times higher than those in informal enterprises, pointing to a wide productivity differential (ILO, 2009).

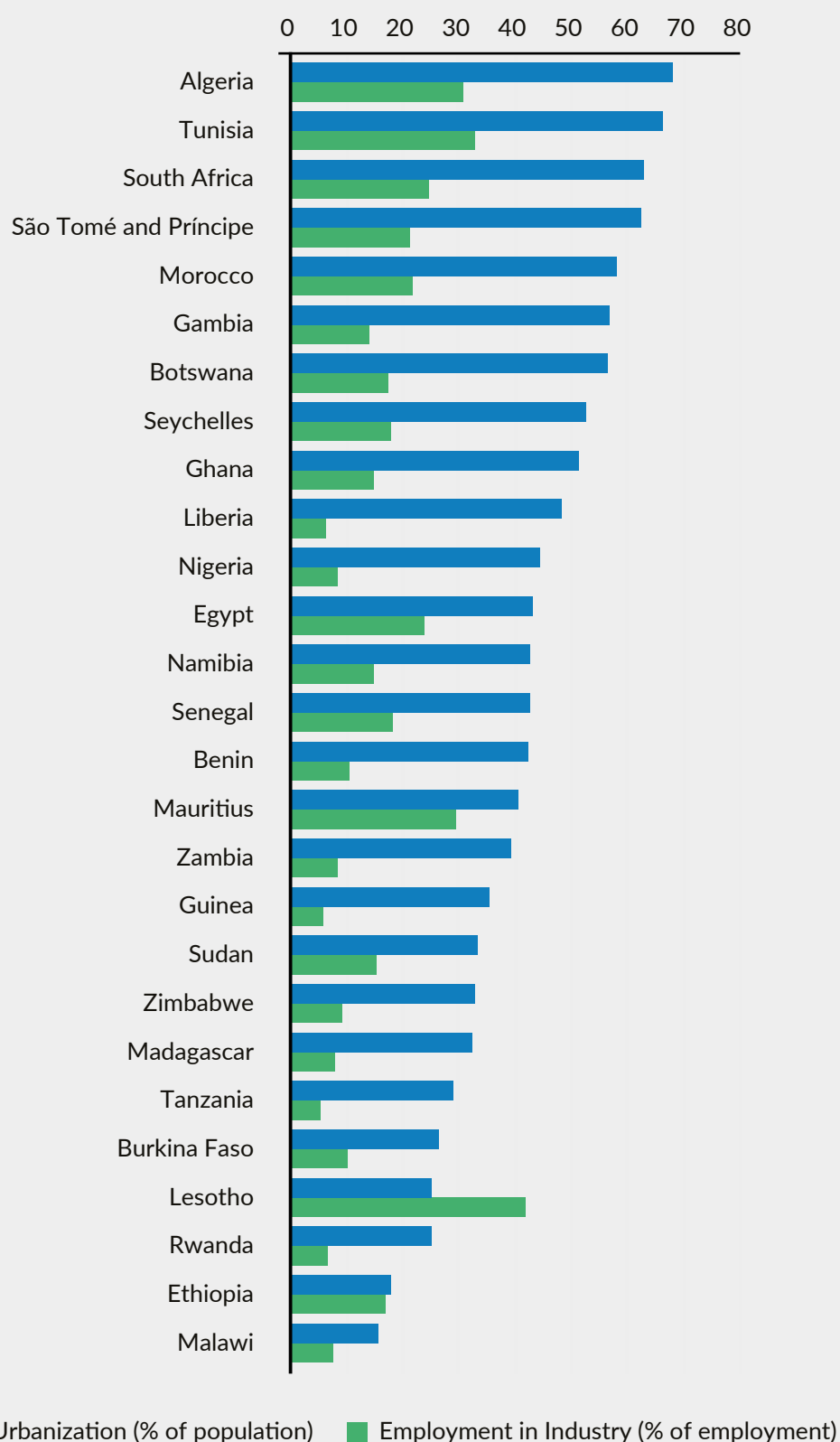
The decent work deficit in Africa is tied to weak industrial development and employment (figure 3.9), particularly in manufacturing. Worldwide the share of paid employment in the total population tends to be positively associated with industrial employment, but at 10 per cent in Africa, the share of employment in manufacturing is extremely low. The share in other global regions is at least 20 per cent and exceeds 30 per cent in East Asia (ILO, 2014). In the face of estimated annual working age population growth of 2.8 per cent (ILO, 2012), job-rich growth and industrial expansion are key for Africa.

Success in job creation is also connected to broader social development issues such as poverty reduction and gender equality. Without enough paid jobs in the formal economy, the fight to reduce the number of working poor, especially women in vulnerable employment, will become harder.⁹ The

International Labour Organization (ILO) estimates male and female workers in vulnerable jobs in Africa to be 70.1 per cent and 84.3 per cent, respectively (ILO, 2014).

Job creation and investment in human capital through education and training are linked to combating poverty and reducing inequality. Labour-intensive manufacturing and well-paying industrial

FIGURE 3.9 Urbanization and industrial employment, 2007–2015



Source: World Development Indicators.
Note: Average of data per country for the period.

and service jobs are needed to absorb the semi-skilled urban population and educated work force leaving university. The formal/informal duality of the labour market and the wide spread of productivity and income across African firms suggest strong potential for relocating resources and enhancing productivity by promoting a supportive and competitive business environment.

More than a decade of strong economic growth has reduced poverty in Africa excluding North Africa, but not by enough and with wide variation across countries (chapter 2).¹⁰ Most resource-poor countries have done better than resource-rich countries, though initial poverty levels tended to be higher in the former. Between 1995–2000 and 2008–2011 the poverty headcount in resource-poor countries fell by 16 per cent compared with

7 per cent in resource-rich countries, though the latter showed 2.2 times faster economic growth.

Industry's potential role in reducing poverty in Africa has recently been demonstrated in a counterfactual study where the share of industry in 12 African countries was simulated at the same levels as Asian benchmark countries when they were at a similar level of GDP. The authors found that most African economies would have less poverty if their structure was closer to the benchmark Asian economies, and that a 1 per cent increase in industrial employment is associated with a 0.8 per cent reduction in the poverty headcount ratio (table 3.1).

Given how entrenched and prevalent the informal economy is, policymakers need to redouble their efforts to ease its binding growth constraints. As highlighted in chapters 4 and 5, informal enterprises contribute to manufacturing value added and, when operating in clusters, increase their productivity. But making the informal economy a key player in structural transformation requires governments to provide it with pathways to growth and formalization by simplifying regulations and removing barriers, including those tied to access to finance, poor mobility, weak infrastructure and issues of land.

Labour-intensive manufacturing and well-paying industrial and service jobs are needed to absorb the semi-skilled urban population and educated work force leaving university.

TABLE 3.1 Structural transformation and poverty simulations

COUNTRY	OBSERVED POVERTY HEADCOUNT	SIMULATED POVERTY HEADCOUNT WITH INDUSTRY SHARE OF GDP SIMILAR TO ASIAN COMPARATORS	PERCENTAGE CHANGE IN HEADCOUNT
Botswana 2005	34.4	30.7	-10.8%
Ethiopia 2005	41.6	39.7	-4.6%
Ghana 2005	22.6	22.9	1.3%
Malawi 2011	65.6	63.5	-3.2%
Mali 2005	47.4	47.4	0.0%
Nigeria 2010	66.8	66.6	-0.3%
Rwanda 2005	52.8	48.5	-8.1%
Senegal 2005	31.1	40.3	29.6%
South Africa 2006	15.9	11.6	-27.0%
Tanzania 2007	62.6	55.2	-11.8%
Uganda 2005	36.2	34	-6.1%
Zambia 2003	64.9	63.4	-2.3%

Source: Newman et al. (2016).

WOMEN

Development goals cannot be reached if women are left behind, but the industrial sector in Africa has not always included this crucial population. Although women's representation has gone up in service employment across Africa since the early 1990s and has approached or surpassed parity in East, Southern and West Africa, it has not reached parity in industry. In Southern and North Africa, women's employment in industry is particularly low relative to men's (based on ILO data). Women should therefore be better targeted and trained for industrial jobs through gender-based policies at regional, national and local levels (box 3.3).

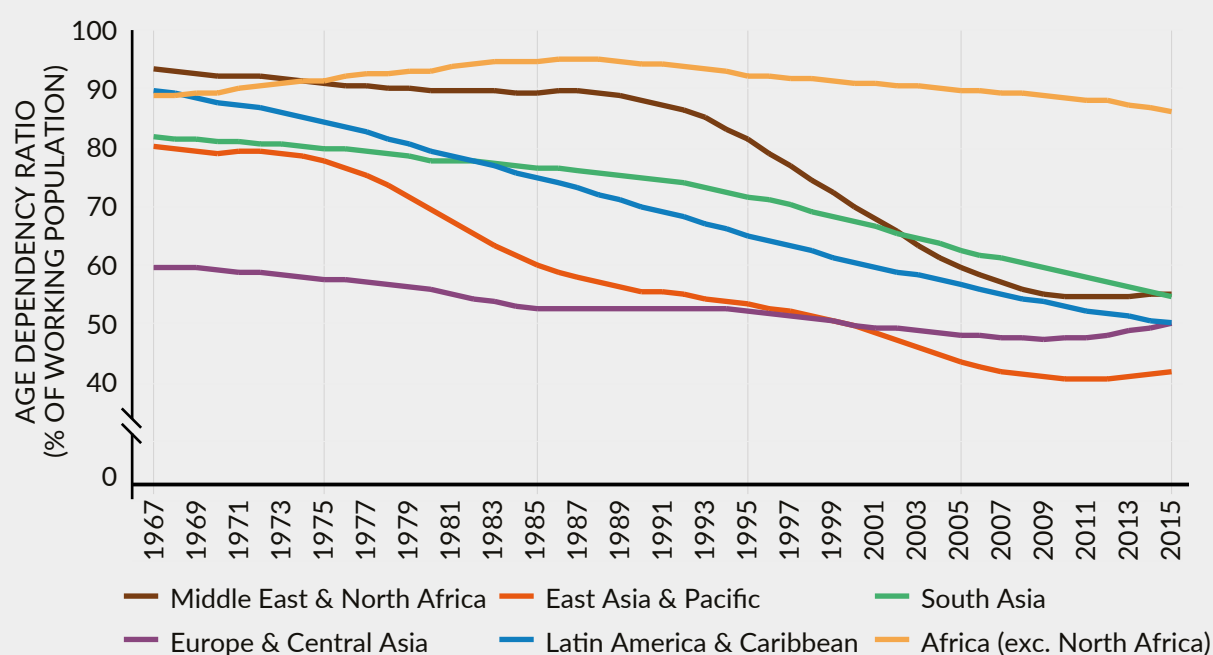
YOUTH

Africa's urban transition is accompanied by a demographic transition, creating an opportunity to leverage a time-limited demographic dividend. As mortality and fertility rates fall and the working age population grows to become larger than the non-working age population, economies benefit from a decreasing dependency ratio. In East Asia such a demographic dividend accounted for one-third

to one-half of growth in the "Asian miracle." The growth effect is felt not just through an increased rate of labour participation, but also through development variables such as life-cycle savings, investment deepening, foreign capital flows and schooling (Williamson, 2013). Drummond, Thakoor and Yu (2014) have estimated that a 1 percentage point change in the age dependency ratio could cause up to a 1.1 percentage point increase in GDP, but to reach this potential, major investments in human capital and labour-intensive industry and services are needed.

Africa other than North Africa is still early in the demographic transition (figure 3.10) and is yet to benefit from a demographic dividend, particularly with youth unemployment up to three times higher than adult employment (AfDB, OECD, UNDP and UNECA, 2012). And in Africa young people with higher education are two or three times more likely to be unemployed than those with primary education, in contrast to those in high-income countries (ILO, 2015). At the same time, industrial firms struggle to find enough skilled workers. Promoting well-targeted technical and vocational education and training is therefore vital for African economies.

FIGURE 3.10 Age dependency ratios by global region, 1967–2015

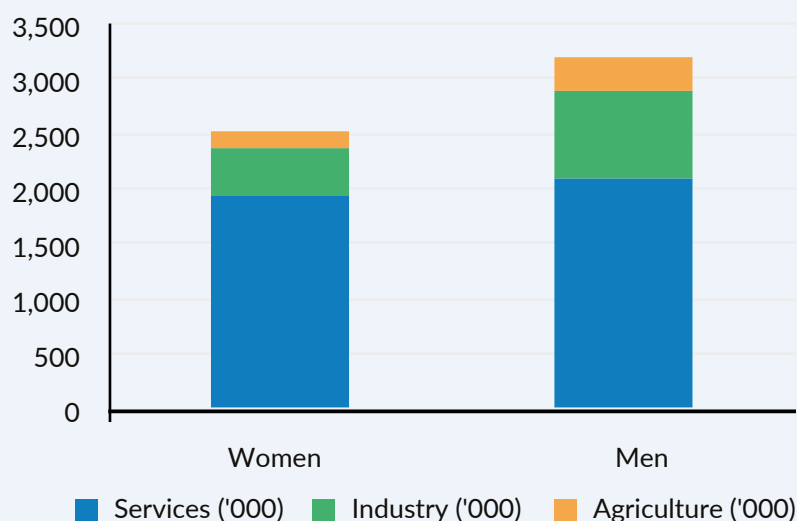


Source: World Development Indicators.

BOX 3.3 INDUSTRIALIZATION WITH OR WITHOUT WOMEN? THE CASE OF ETHIOPIA'S CITIES

Data on key indicators of labour markets specifically for urban areas are rare. Ethiopia is the only country in Africa with such data based on standard labour force surveys that are publicly available through the ILO. In its urban areas, while similar numbers of men and women work in services, men are nearly twice as likely to be employed as women in industry (box figure 3.1).

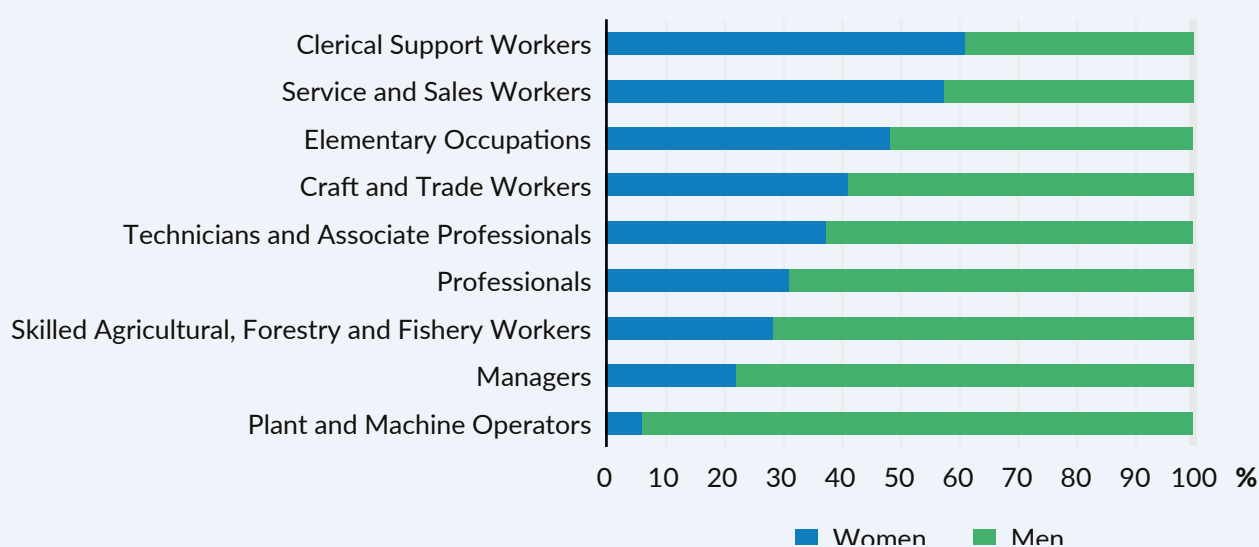
BOX FIGURE 3.1 Sector employment by gender, Ethiopia, urban areas, 2012



Source: ILOSTAT (ages 10 and up).

Women in urban areas are particularly underrepresented in sectors including professional employment, skilled agricultural employment, managerial positions and, the most, among plant and machine operators (box figure 3.2).

BOX FIGURE 3.2 Employment by gender and subsector, Ethiopia, urban areas, 2012



Source: ILO-KILM database (ages 10 and up).

BOX 3.3 (CONT.) INDUSTRIALIZATION WITH OR WITHOUT WOMEN? THE CASE OF ETHIOPIA'S CITIES

Consistent with sectoral and occupational segregation, women are more likely to fall into vulnerable employment—that is, own-account workers and contributing family workers (box table 3.1).

BOX TABLE 3.1 Employment status by sex, Ethiopia, urban areas (ages 10 and up), 2012

	WAGE EMPLOYMENT	SELF- EMPLOYED	EMPLOYER	OWN- ACCOUNT WORKER	MEMBER OF PRODUCERS' COOPERATIVES	CONTRIBUTING FAMILY WORKER	VULNERABLE EMPLOYMENT
Per cent of male workforce	52.5	46.3	0.9	38.0	0.9	6.5	44.5
Per cent of female workforce	47.0	52.2	0.4	39.5	0.9	11.4	50.9
Gap (Ratio of male percentage to female)	0.90	1.13	0.44	1.04	1.00	1.75	1.14

Source: ILO (2016).

In Ethiopia and elsewhere, urban labour markets are failing women. Raising the productivity of urban workers will require specific attention to women's employment.

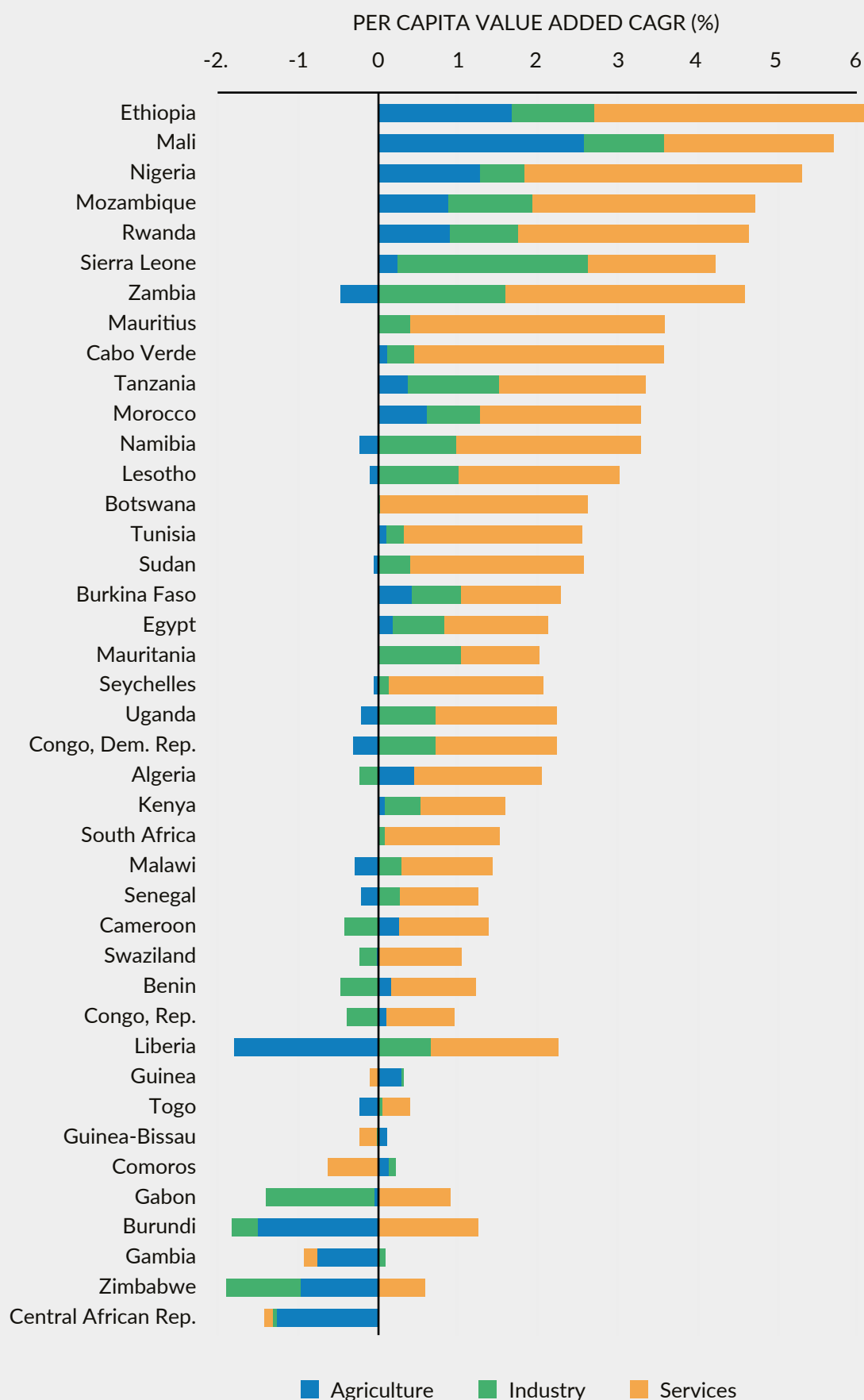
3.9 REASONS FOR OPTIMISM

After the turn of the century, structural transformation began to contribute to growth in some African countries. In an update to the original study demonstrating negative impacts of structural transformation (McMillan and Rodrik, 2011), Rodrik, McMillan and Verduzco-Gallo (2014) found that half of their African sample (Nigeria, Zambia, Ethiopia and Malawi) recorded an expansion in manufacturing after 2000 and that other countries such as Mauritius and Senegal saw labour move into high-productivity service sectors, generating the type of structural transformation required for development (Rodrik, McMillan and Verduzco-Gallo, 2014). Another study that used demographic and health survey data for 2000–2010 also concluded that structural transformation has contributed to labour productivity growth in Africa in around half of its sample countries (McMillan and Harttgen, 2014). A decomposition of growth rates by sector shows that in most African countries with data,

industry contributed to per capita income growth in 2000–2014 (figure 3.11).

Other reasons for guarded optimism about Africa's industrial future include the prospect of some Chinese industries migrating to avoid rising labour and manufacturing costs at home (Page, 2012; Rodrik, McMillan and Verduzco-Gallo, 2014) and

Africa's industrial future includes the prospect of some Chinese industries migrating to avoid rising labour and manufacturing costs at home and the growing role of urban consumption in Africa as a force for attracting investment and industrial growth.

FIGURE 3.11 Per capita value-added growth rates by country and sector, Africa, 2000–2014

Source: World Development Indicators.

the growing role of urban consumption in Africa as a force for attracting investment and industrial growth. Cities hosting a growing middle class are potential investment destinations due to rising consumer spending and expected infrastructure

investment. By 2030, urban residents in Africa's top 18 cities may well have a combined spending power of \$1.3 trillion (Leke et al., 2010).

3.10 MYTHS TO DISPEL

Alongside a more positive view by African governments and development partners of cities' potential—economically and socially—are seeing African countries express renewed commitment to resurrecting their industrial sectors in national development frameworks and in Agenda 2063 of the African Union. It is time to lay to rest the common myths of an earlier “anti-urban” era.

MYTH 1: AS POLICIES TO IMPROVE CITIES WILL STIMULATE MIGRATION AND ONLY MAKE CITIES MORE OVERCROWDED, POLICYMAKERS SHOULD FOCUS ON RURAL DEVELOPMENT TO SLOW URBANIZATION

Africa's urbanization is driven more by natural growth than migration. Africa's rates of migration peaked in the 1960s, declining after that. Unlike the experience of the United Kingdom during the industrial revolution, where natural urban population growth was lower in cities due to high death rates, Africa's urban population growth is driven by natural population growth based on a fall in mortality rates in cities. Urbanization will therefore continue independently of migration or rural development (Annez and Buckley, 2009; Fox, 2014).

Additionally, past policies of preventing or slowing migration failed. In the 1980s many African governments, concerned by rapid urbanization,

attempted to slow urban growth, but their policies failed (Annez and Buckley, 2009; UN-Habitat, 2014) and may well have caused productivity losses (Harvey, 2009). Policies that attempt to deter migration (through lack of service provision) should be avoided, given their adverse economic impacts (Turok and McGranahan, 2013).

Finally, rural and urban development are complementary. Multi-faceted economic linkages between urban and rural areas mean that well-functioning urban economies have benefits for rural areas, too. Increasingly urban migrants and their families straddle the urban–rural line, developing livelihood strategies that combine incomes from both sources (Annez and Buckley, 2009; Potts, 2010). Urban migrants remit money back to rural areas, boosting spending in education and investments with benefits for rural economic productivity (AfDB, OECD and UNDP, 2016). Migration, particularly to small towns, is often a way out of poverty. Urbanization also helps rural economic development by creating markets for agricultural products and by providing business services to agricultural enterprises.

MYTH 2: AFRICAN CITIES ARE CHEAP

African cities are very expensive, more so than cities in countries at similar income levels by a margin of up to 31 per cent (Nakamura et al., 2016)—sweeping aside any assumption that industrial development in Africa will benefit from cheap labour and land (chapter 4). Further, the indirect costs of poor infrastructure provision actually put African firms at a competitive disadvantage, with many firms in South America and East Asia paying 50 per cent and 70 per cent less, respectively, for inland transport of imports and exports to and from port, and African firms losing up to 13 per cent of their working hours owing to electricity outages (Iarossi, 2009).

Multi-faceted economic linkages between urban and rural areas mean that well-functioning urban economies have benefits for rural areas too.

Poorly functioning cities are pricey, especially when land and property markets are artificially constrained by poorly functioning institutions or lack of serviced, buildable land. Lack of access to land in suitable locations is among the major factors preventing small firms from growing. The inability of property markets to respond to demand means higher prices. The cost of living in New York city is the highest in the United States due to the city's productive advantages—but Luanda, Angola; Kinshasa, Democratic Republic of Congo; and N'Djamena, Chad all have higher costs of living than New York City (see table 4.6 in chapter 4).¹¹ Expensive cities undermine their urban productive advantage.

The cost of living in New York city is the highest in the United States due to the city's productive advantages—but Luanda, Angola; Kinshasa, Democratic Republic of Congo; and N'Djamena, Chad all have higher costs of living than New York City.

MYTH 3: GOOD CITIES WILL SPRING UP NATURALLY UNDER FREE MARKET CONDITIONS

Cities are built on the foundation of public infrastructure. Cities grow around a network of public spaces, the most critical of which are streets. Government is important in defining how streets and infrastructure will shape the city and can result in well-functioning—or poorly functioning—urban space. In some places market demand seems to be at the root of new property development; however, there are too often hidden subsidies supporting the extra infrastructure costs of low-density high-income areas, fuelling urban sprawl with deleterious economic consequences.

The elements of a free market for developing property can indeed create economic responsiveness, allowing the city to adapt to changing economic forces and respond to demand for housing and non-residential space. Likewise, private development that is abetted by well-functioning land and property markets can release economic potential (box 3.4). However, the role of institutions and public investments must not be underestimated. Public investment in infrastructure, in a long-term planning framework, signals government commitment and the growth prospects of a city, helping to crowd in private investment in industry. Well-coordinated public and private goods play complementary roles.

BOX 3.4 GURGAON, INDIA: A PRIVATE CITY

Gurgaon is an Indian city thriving on domestic and foreign industrial and information technology (IT) firms. In 1991 it was a small village in Delhi city's the backyard with a population of around 121,000. In 2011 it had surged to 1.5 million inhabitants. In 2013 nearly half the Fortune 500 companies had operations in Gurgaon.

Gurgaon did not have a municipal authority until 2008—and thus was developed by the private sector—for three reasons. First, businesses and citizens of Delhi looked to nearby Gurgaon for cheaper land and greater growth opportunities when Delhi property markets became tight. Second, in Haryana State, where Gurgaon is situated, the legislature passed laws to enable large-scale land acquisition for private firms to develop townships. Third, after big companies like General Electric initiated the growth momentum by coming in, its growth encouraged others to help make the city an IT hub with all the modern appurtenances, including 43 shopping malls, luxurious apartment towers, skyscrapers, golf courses and five-star hotels.

The absence of an active government role in Gurgaon's development has a downside, however: very poor infrastructure. "Sewage is often dumped in nearby rivers or open land. ... Power outages are frequent. In addition public transport is poor to non-existent ... Security is also poor in public areas where police are undersupplied" (p. 201). This failure poses a threat to the city's long-term economic stability and growth.

Source: Rajagopalan and Tabarrok, 2014.

The failure of governments to deliver public infrastructure and services is at the heart of urban and industrial failures. Economically efficient cities require early, strategic investments, particularly in energy, transport and other infrastructure.

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Economically efficient cities require early, strategic investments, particularly in energy, transport and other infrastructure. Socially equitable cities also require government action to assist low-income households to find decent housing and connect to jobs. Environmentally sustainable cities require policies to correct the market failures caused by negative externalities.

Industrial activity is particularly susceptible to the failure of governments to intervene in urban development and planning. This is for three reasons: industrial firms have firm-specific location requirements which may include the need to access labour, access markets or ports, access inputs, and access knowledge and ideas; some industries require oversized plots or need to be separated from conflicting uses; and industrial productivity and competitiveness are sensitive to the availability of infrastructure, particularly electricity and transport.

MYTH 4: INDUSTRY WILL DO BETTER IF SEPARATED FROM THE URBAN DYSFUNCTION OF CITIES

Except for natural resources extraction, most of Africa's industrial activities are based in urban areas. Special economic zones (SEZs) are one option to create pockets of industrial competitiveness, but if separated from the city, forgo major productive advantages (box 4.3 in chapter 4). Studies of SEZs in Africa have found that locating SEZs in lagging areas contributes to their failure, owing to the poor quality

of infrastructure and the inability of firms to access wide pools of skilled labour (Farole, 2011; Altbeker, McKeown and Bernstein, 2012). The cost to bring infrastructure up to standards in lagging regions, or to create entirely new cities from scratch, is very high and may still fail to attract enough firms and residents to reach the competitiveness threshold (see examples in chapter 5).

Industrial enterprises must balance the benefits of urban space with urban diseconomies such as higher land prices and congestion. Some industrial sectors tend toward smaller specialized cities or the urban periphery to maximize their locational advantages. Industry parks can balance locational trade-offs, but must be well placed and connected to cities. Making cities work is usually better than forgoing the benefits they already have.

MYTH 5: URBAN ISSUES ARE SOCIAL ISSUES, NOT ECONOMIC ISSUES

Africa's cities generate enormous wealth, are at the heart of the region's innovative potential and are home to the region's top firms.¹² As detailed in this chapter, the forces of agglomeration economies give cities a productive advantage, making African cities crucial players in economic transformation. They are at the centre of the emergence and growth of industries, high productivity services and value-added linkages to agriculture and other rural commodities. This economic potential of cities has not been fully exploited though. Leveraging these advantages and maximizing their economic contributions is a critical condition for sustaining the current trend of economic growth and achieving structural transformation. The economic challenges and barriers facing Africa's cities are critical impediments to structural transformation; cities must be supported to achieve their economic potential through appropriate policies and institutions.

“Urban” policies – whether in housing, sanitation or health – have economic implications. The economic dynamism of cities underlie their ability to achieve development goals in a host of many other areas, including human development.

In spite of the economic significance of cities, they are too often only discussed in relation to housing, sanitation or siloed elements of human development, and policies on these topics are divorced from policies on urban economic development. The urban narrative often focuses on a single sector, for example the housing shortage or financial challenges constraining service delivery. The role and the fate of cities is larger than their fragmented policy frameworks. “Urban” policies – whether in housing, sanitation or health – have economic implications. The economic dynamism of cities underlie their ability to achieve development goals in a host of many other areas, including human

development. Particularly in the current context of rapid urbanization in Africa, cities’ ability to create productive jobs and to expand revenue base for inclusive and sustained economic development is imperative. An economic perspective is therefore an essential element of the urban narrative. Understanding the complexity and interplay of the different urban sectors is fundamental to achieve economic and human development. Urban social issues are of course important; but they must not be the only lens through which urban policy is formed. The economic weight of cities demands that urban policy have an economic lens and that cities are a central component of development planning.

3.11 POLICY IMPLICATIONS AND LOOKING AHEAD

Urban development and its links to Africa’s development is receiving new policy focus at national, regional and international levels. Goal 11 of the Sustainable Development Goals, the New Urban Agenda and Agenda 2063 demonstrate some recent thrusts. Based on the topics covered in this chapter, it is possible to derive a set of overarching policy considerations with more detailed policy implications in later chapters:

- Policymakers should recognize the economic potential of cities for their key role in structural transformation, especially in the face of rapid urbanization.
- Policies should not seek to deter rural-urban migration because it is not the driving force behind urban population growth and is needed for structural transformation.
- The importance of the quality and form of urban development must be addressed early to avoid severe economic, environmental and social problems in the long term.
- Policies should make cities more efficient for the sake of industrial firms’ cost base and their global competitiveness.
- Good cities require well-planned public investments and long-term public policy.
- Industrialization should be central to development policy, primarily the absorption of labour into job-rich industrial sectors (but which natural resource-reliant countries will find a particular challenge).
- Cities need to serve the needs of women, youth and informal sector workers.

If urban and industrial challenges are addressed jointly by urban and industrial stakeholders, policies can be better coordinated and aligned for achieving common purposes.

Policies to connect urbanization and industrialization are important for three reasons:

CITIES REQUIRE BETTER PERFORMING INDUSTRIALIZATION

The failure of African industry to create broad-based jobs, develop functional value chains and support urban–rural linkages manifests in cities dominated by poverty, informality and inequality. Improvements to the industrialization process have a critical role to play in tapping into the productive power of cities. Job-rich youth-employing sectors must grow if Africa is to take advantage of the opportunities for a demographic dividend. Manufacturing and labour-absorptive industries with high productivity growth potential are part of the pathway to a prosperous urban future.

TABLE 3.2 Common urban and industrial issues

URBAN	INDUSTRIAL
Urban infrastructure: electricity, transport, water and sanitation, and so on	Infrastructure for industry: electricity, transport, logistics, and so on
Employment clusters and urban jobs	Clustering of competitive sectors
Cities in a nursery role, firm churning	Industrial innovation
Urban-based R&D, IT and training institutions; education and human capital	Industrial upgrading
Consumption cities	Resource-rich disadvantages, including currency overvaluation
Duality of labour market in cities, constraints to labour mobility	Flexible labour markets, labour pooling, labour matching
Port cities, trade logistics	Export competitiveness
Clustering; proximity; co-location of industries; urban efficiency	Agglomeration economies
Urban systems and SEZs	Industrial location matching
Urban land market functionality	Access to land

INDUSTRIALIZATION REQUIRES MORE FUNCTIONAL CITIES

Cities are the hotbed of innovation and the dynamic churning process of capital and labour that can enable developmental leaps forward. Cities provide firms with access to consumer markets, the pooling of labour and matching of specialized skill sets, opportunities for specialization, access to a better selection of inputs, and the sharing of knowledge and ideas. Urban economies of scale also operate in the provision of public infrastructure and services, lowering the cost for users. Overcoming the barriers to urban productivity, including poor urban form, segregation and the urban infrastructure gap, holds enormous benefits for industry.

URBANIZATION AND INDUSTRIALIZATION HAVE COMMON PROBLEMS

The development of cities and industries share challenges (table 3.2) including infrastructure deficits, labour markets with high informality and constraints on the mobility of people and goods. If addressed jointly by urban and industrial stakeholders, policies can be better coordinated and aligned for achieving common purposes.

The resolve by African leaders to make the continent prosperous, inclusive and sustainable puts structural transformation at the centre of the region's long-term vision and agenda (AU, 2015). As Africa continues to pursue structural transformation, harnessing the opportunities generated by urbanization is critical. Despite the evidence that urbanization and industrialization are closely interlinked, this has not been the case in Africa, losing opportunities for growth and improved well-being. Opportunities and strategies for reconnecting urbanization and structural transformation are described in greater detail in the following chapters.

As Africa continues to pursue structural transformation, harnessing the opportunities generated by urbanization is critical. Despite the evidence that urbanization and industrialization are closely interlinked, this has not been the case in Africa, losing opportunities for growth and improved well-being.

REFERENCES

- AfDB (African Development Bank). 2012. *African Economic Outlook 2012: Promoting Youth Employment*. Abidjan, Côte d'Ivoire.
- . n.d. *The Bank Group's Urban Development Strategy: Transforming Africa's Cities and Towns into Engines of Economic Growth and Social Development*. Abidjan: Côte d'Ivoire. Available at: <http://www.afdb.org/file-admin/uploads/afdb/Documents/Policy-Documents/Urban-Development%20Strategy-Rev%201.pdf>.
- AfDB, OECD (Organisation for Economic Co-operation and Development) and UNDP (United Nations Development Programme). 2016. *African Economic Outlook 2016: Sustainable Cities and Structural Transformation*. Paris: OECD Publishing. Available at: <http://www.africaneconomicoutlook.org/>.
- AfDB, OECD, UNDP and UNECA (United Nations Economic Commission for Africa). 2012. *African Economic Outlook 2012: Promoting Youth Employment*. Accessed November 09, 2016.
- AU (African Union). 2015. *Agenda 2063 The Africa We Want*. Addis Ababa. Available at: <http://www.un.org/en/africa/osaa/pdf/au/agenda2063.pdf>.
- Altbeker, A., K. McKeown and A. Bernstein. 2012. "Special Economic Zones: Lessons for South Africa from International Evidence and Local Experience." Executive Summary 19. CDE Round Table. Johannesburg: Centre for Development and Enterprise.
- Alvarez-Cuadrado, F., and M. Poschke. 2011. "Structural Change Out of Agriculture: Labor Push versus Labor Pull." *American Economic Journal: Macroeconomics* 3: 127–158.
- Annez, P., and R. Buckley. 2009. "Urbanization and Growth: Setting the Context." In M. Spence, P. Annez and R. Buckley (eds.), *Urbanization and Growth*. Washington, DC: Commission on Growth and Development.
- Awumbisa, M. 2014. *Linkages between Urbanization, Rural–Urban Migration and Poverty Outcomes in Africa*. Geneva: International Organization for Migration.
- Barofsky, J., E. Siba and J. Grabinsky. 2016. *Can Rapid Urbanization in Africa Reduce Poverty? Causes, Opportunities, and Policy Recommendations*. Washington, DC: Brookings Institution. Available at: <https://www.brookings.edu/blog/africa-in-focus/2016/09/07/can-rapid-urbanization-in-africa-reduce-poverty-causes-opportunities-and-policy-recommendations/>.
- Brühlhart, M., and F. Sbergami. 2008. "Agglomeration and Growth: Cross-country Evidence." *Journal of Urban Economics* 65 (2009): 48–63.
- Chenery, H. 1982. "Industrialization and Growth: The Experience of Large Countries." Staff Working Paper 539. Washington, DC: World Bank.
- Collier, P. 2007. *The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It*. New York: Oxford University Press.
- de Vries, G., M. Timmer and K. de Vries. 2014. *Structural Transformation in Africa: Static Gains, Dynamic Losses*. Paper prepared for the International Association for Research in Income and Wealth 33rd General Conference, Rotterdam, the Netherlands, August 24–30, 2014. Available at: <http://www.iariw.org/papers/2014/deVriesPaper.pdf>.
- Dorosh, P., and J. Thurlow. 2014. "Can Cities or Towns Drive African Development? Economywide Analysis for Ethiopia and Uganda." *World Development* 63: 113–123.
- Drummond, P., V. Thakoor and S. Yu. 2014. *African Development Africa Rising: Harnessing the Demographic Dividend*. Working Paper WP14/143. Washington, DC: IMF.
- Duranton, G. 2009. "Cities: Engines of Growth and Prosperity for Developing Countries?" Working Paper 12. Washington, DC: Center for Global Development.
- . 2015. "Growing through Cities in Developing Countries." *The World Bank Research Observer* 30 (1).
- Dyson, T. 2009. "The Role of the Demographic Transition in the Process of Urbanization." Paper prepared for the International Workshop on the Long Term Implications of the Demographic Transition, Madrid, September 24–26, 2009. Available at: http://sgfm.elcorteingles.es/SGFM/FRA/recursos/doc/Actos/2009/Ponencias_ingles/Long_term_Implications/405329082_2192009135719.pdf.
- Euromonitor International. 2016. *Doing Business beyond South Africa: Growth and Opportunity in Sub-Saharan Cities*. London.
- Farole, T. 2011. *Special Economic Zones in Africa: Comparing Performance and Learning from Global Experience*. Washington, DC: World Bank.
- Fay, M., and C. Opal. 2000. *Urbanization without Growth, A Not-So-Uncommon Phenomenon*. Policy Research Working Paper 2412. Washington, DC: World Bank.
- Fox, S. 2014. "Urbanization as a Global Historical Process: Theory and Evidence from Sub-Saharan Africa." *Population and Development Review* 38 (2): 285–310.
- Freire, M., S. Lall and D. Leipziger. 2014. "Africa's Urbanization: Challenges and Opportunities." Working Paper 7. Washington, DC: The Growth Dialogue. Available at: http://www.danny-leipziger.com/documents/GD_WP7.pdf.
- Fukunishi, T. 2004. *International Competitiveness of Manufacturing Firms in Sub-Saharan Africa*. Chiba: JETRO.
- Glaeser, E., and M. Resseger. 2010. "The Complementarity Between Cities and Skills." *Journal of Regional Science* 50 (1): 221–244.
- Gollin, D., R. Jedwab and D. Vollrath. 2014. "Urbanization with and without Industrialization." *Journal of Economic Growth* 21 (1): 35–70.

- Harris, J., and M. Todaro. 1970. "Migration, Unemployment and Development: A Two-sector Analysis." *American Economic Review* 60 (1): 126–142.
- Harvey, D. 2009. "Reshaping Economic Geography: The World Development Report 2009." *Development and Change* 40: 1269–1277.
- Henderson, J. 2010. "Cities and Development." *Journal of Regional Science* 50 (1): 515–540.
- Iarossi, G. 2009. *Benchmarking Africa's Costs and Competitiveness*. Washington, DC: World Bank.
- ILO (International Labour Organization). 2009. *The Informal Economy in Africa: Promoting Transition to Formality: Challenges and Strategies*. Geneva.
- . 2012. *Global Employment Trends 2012*. Geneva. Accessed December 23, 2016.
- . 2014. *Global Employment Trends 2014*. Geneva. Accessed December 23, 2016.
- . 2015. *Global Employment Trends for Youth 2015*. Geneva. Accessed December 23, 2016.
- ILOSTAT. 2016. ILOSTAT database. Available at: <http://www.ilo.org/ilostat>
- Jedwab, R. 2013. *Urbanization without Structural Transformation: Evidence from Consumption Cities in Africa*. Washington, DC: George Washington University.
- Jedwab, R., L. Christiaensen and M. Gindelsky. 2014. *Rural Push, Urban Pull and... Urban Push? New Historical Evidence from Developing Countries*. Washington, DC: George Washington University.
- Kessides, C. 2006. *The Urban Transition in Sub-Saharan Africa: Implications for Economic Growth and Poverty Reduction*. Washington, DC: World Bank.
- Khan, M. 2006. *Green Cities: Urban Growth and the Environment*. Washington, DC: Brookings Institution.
- Leke, A., S. Lund, C. Roxburgh and A. van Wamelen. 2010. *What's Driving Africa's Growth*. June. McKinsey Global Institute. Available at: <http://www.mckinsey.com/global-themes/middle-east-and-africa/whats-driving-africas-growth>.
- Lewis, W. A. 1954. "Economic Development with Unlimited Supplies of Labour." *The Manchester School* 22 (2): 139–191.
- Marshall, A. 1920. *Principles of Economics*. London: Macmillan.
- McMillan, M., and K. Harttgen. 2014. *What is Driving the 'African Growth Miracle'?* Abidjan, Côte d'Ivoire: African Development Bank. Available at: http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Working_Paper_-_209_-_What_is_driving_the_African_Growth_Miracle.pdf.
- McMillan, M., and D. Rodrik. 2011. "Globalization, Structural Change and Productivity Growth." In M. Bacchetta and M. Jansen (eds.), *Making Globalization Socially Sustainable*: 49–84. Geneva: International Labour Organization.
- Nakamura, S., R. Harati, S. Lall, Y. Dikhanov, N. Hamadeh, W. Oliver, M. Rissanin and M. Yamanaka. 2016. *Is Living in African Cities Expensive?* Washington, DC: World Bank.
- Newman, C., J. Page, J. Rand, A. Shimeles, M. Söderbom and F. Tarp. 2016. *Made in Africa: Learning to Compete in Industry*. Washington, DC: Brookings Institution.
- Njoh, A. 2003. "Urbanization and Development in Sub-Saharan Africa." *Cities* 20 (3): 167–174.
- O'Sullivan, A. 2007. *Urban Economics*. Singapore: McGraw-Hill.
- Overman, H., and A. Venables. 2005. *Cities in the Developing World*. London: Centre for Economic Performance.
- Page, J. 2012. "Can Africa Industrialise?" *Journal of African Economics* 21 (suppl 2): ii86–ii124.
- Potts, D. 2010. *Circular Migration in Zimbabwe and Contemporary Sub-Saharan Africa*. Woodbridge and Rochester, NY: James Currey and Boydell and Brewer.
- . 2014. *Whatever Happened to Africa's Rapid Urbanization?* London: Africa Research Institute.
- Quigley, J.. 2008. "Urbanization, Agglomeration and Economic Development." Working Paper 19. Washington, DC: Commission on Growth and Development.
- Rajagopalan, S., and A. Tabarrok. 2014. *Lessons from Gurgaon, India's Private City in Cities and Private Planning*. Available at: <http://mason.gmu.edu/~atabarro/Lessons%20from%20Gurgaon.pdf>.
- Rodrik, D. 2013. "Unconditional Convergence in Manufacturing." *Quarterly Journal of Economics* 128 (1): 165–204.
- . 2015. *Premature Deindustrialization*. Princeton, NJ: Institute for Advanced Study, School of Social Science.
- Rodrik, D., G. McMillan and Í. Verduzco-Gallo. 2014. "Globalization, Structural Change, and Productivity Growth, with an Update on Africa." *World Development* 63: 11–32.
- Rosenthal, S., and W. Strange. 2004. "Evidence on the nature and sources of agglomeration economies." In V. Henderson and J.F. Thisse (eds.), *Handbook of Regional and Urban Economics 4: Cities and Geography*: 2119–2171. Amsterdam: Elsevier.
- Storeygard, A. 2013. *Farther on Down the Road: Transport Costs, Trade and Urban Growth in Sub-Saharan Africa*. Washington, DC: World Bank.
- Timmer, C., and S. Akkus. 2008. "The Structural Transformation as a Pathway out of Poverty: Analytics, Empirics and Politics." Working Paper 150. Washington, DC: Center for Global Development.
- Turok, I. 2013. "Securing the Resurgence of African Cities." *Local Economy* 28 (2): 142–157.
- . 2014. "Urbanization and Development in the BRICS." In *Handbook on Cities in the Global South*, edited by S. Oldfield and S. Parnell. London: Routledge.

Turok, I., and G. McGranahan. 2013. "Urbanization and Economic Growth: The Arguments and Evidence for Asia and Africa." *Environment and Urbanization* 25 (2): 465–482.

UNDESA (United Nations Department of Economic and Social Affairs). 2014. *World Urbanization Prospects: 2014 Revision*. New York: United Nations Department of Social and Economic Affairs.

UNDP (United Nations Development Programme). 2015. *Human Development Report 2015: Work for Human Development*. New York: United Nations Development Programme.

UNECA (United Nations Economic Commission for Africa). 2013. *Economic Transformation for Africa's Development*. Addis Ababa.

UN-Habitat. 2010a. *State of African Cities*. Nairobi.

———. 2010b. *State of the World Cities 2010/2011 - Cities for all: Bridging the Urban Divide*. Nairobi: UN-Habitat.

———. 2013. *Unleashing the Economic Potential of Agglomeration in African Cities*. Nairobi: UN-Habitat.

———. 2014. *State of African Cities 2014: Reinventing the Urban Transition*. Nairobi: UN-Habitat.

Vanek, J., M. Chen, F. Carré, J. Heintz and R. Hussmanns. 2014. "Statistics on the Informal Economy: Definitions, Regional Estimates and Challenges." WIEGO Working Paper 2. Cambridge, MA: Women in Informal Employment Globalizing and Organizing.

Williamson, J. 2013. "Demographic Dividends Revisited." *Asian Development Review* 30 (2).

World Bank. 2001. *World Development Report 2000/2001: Attacking Poverty*. Washington, DC.

World Development Indicators. WDI database. Available at: <http://data.worldbank.org/data-catalog/world-development-indicators>.

ENDNOTES

- 1 See chapter 2.
- 2 Four characteristics of development define structural transformation: a declining share of agriculture in GDP and employment, a rise in industrial and service sectors, demographic transition from high rate of births and deaths to low rates of births and deaths and a rapid process of urbanization (Timmer and Akkus, 2008).
- 3 Based on calculations using the World Development Indicators.
- 4 Thorough reviews of the empirical literature on agglomeration economies include Rosenthal and Strange (2004), Danton and Puga (2004) and Overman and Venables (2005).
- 5 Thorough reviews of the empirical literature include Rosenthal and Strange (2004), Danton and Puga (2004) and Overman and Venables (2005).
- 6 That is, where the economic costs of actions are not borne by the instigator.
- 7 Under Engel's law, elasticity of demand of agricultural products is lower than that of manufacturing products. Thus a productivity increase in agriculture results in release of labour to secondary and tertiary sectors of the economy.
- 8 Based on World Development Indicators for 40 countries with data.
- 9 In 2011 Africa's share of working poor was estimated at 82 per cent, more than double the global average of 39 per cent (Newman et al., 2016).
- 10 Between 1996 and 2010, the share of people living on less than \$1.25 a day in Africa excluding North Africa declined from an estimated 58 per cent to 48.5 per cent.
- 11 According to city cost of living rankings by Mercer, 2016. These include rental rates. Cost of living is from an expatriate perspective but is useful for city cross-comparisons.
- 12 Cities in Africa generate a share of GDP and manufacturing value added disproportionate to their population size (Dorosh and Thurlow, 2014; Kessides, 2006; Storeygard, 2013), host a higher share of leading companies (UN-Habitat, 2010b) and have higher productivity than other areas (Euromonitor International, 2016).