

URBANIZATION AND INDUSTRIALIZATION

FOR AFRICA'S TRANSFORMATION



ECONOMIC REPORT ON AFRICA



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LIST OF ABBREVIATIONS USED



AEO	African Economic Outlook
AfDB	African Development Bank
AU	African Union
AUC	African Union Commission
BPO	Business Process Outsourcing
BRT	Bus Rapid Transit
CAR	Central African Republic
CEN-SAD	Community of Sahel-Saharan States
CFA	Communauté Financière d'Afrique
CFTA	Continental Free Trade Area
COMESA	Common Market for Eastern and Southern Africa
UN Comtrade	United Nations Commodity Trade Statistics Database
DHS	Demographic and Health Surveys
DRC	Democratic Republic of the Congo
EAC	East African Community
EAP	East Asia and Pacific
ECA	Eastern Europe and Central Asia
ECA	United Nations Economic Commission for Africa
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EIU	Economist Intelligence Unit
ERA	Economic Report on Africa
EU	European Union
FDI	Foreign Direct Investment
FLFPR	Female Labour Force Participation Rate
FTA	Free Trade Area

GDP	Gross Domestic Product
GNI	Gross National Income
GPS	Global Positioning System
IGAD	Intergovernmental Authority on Development
ICT	Information and Communication Technology
ILO	International Labour Organization
ILO-KILM	International Labour Organization Key Indicators of the Labour Market
ILOSTAT	International Labour Organization Database
IMF	International Monetary Fund
IPAP	Industrial Policy Action Plan
ISIC	International Standards Industrial Classification
IT	Information Technology
IUDF	Integrated Urban Development Framework
LAC	Latin America and the Caribbean
MENA	Middle East and North Africa
MINECOFIN	Ministry of Finance and Economic Planning of Rwanda
MINICOM	Ministry of Trade and Industry of Rwanda
MRTA	Mega-Regional Trade Agreement
NISR	National Institute of Statistics of Rwanda
ODI	Overseas Development Institute
OECD	Organisation for Economic Cooperation and Development
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-Private Partnership
PPP	Purchasing Power Parity
PwC	Pricewaterhouse Coopers
R&D	Research and Development
RCEP	Regional Comprehensive Economic Partnership
REC	Regional Economic Communities
RWF	Rwandan Franc
SA	South Asia
SADC	Southern African Development Community
SEZs	Special Economic Zones
SME	Small and Medium-sized Enterprise
TB	Tuberculosis
TFR	Total Fertility Rate
TPP	Trans-Pacific Partnership
TTIP	Transatlantic Trade and Investment Partnership
TVET	Technical and Vocational Education and Training
UMA	Union du Maghreb Arabe
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund

UN-Habitat	United Nations Human Settlements Programme
UNICEF	United Nations International Children's Emergency Fund.
US	United States
USAID	United States Agency for International Development
WDI	World Development Indicators
WTO	World Trade Organization

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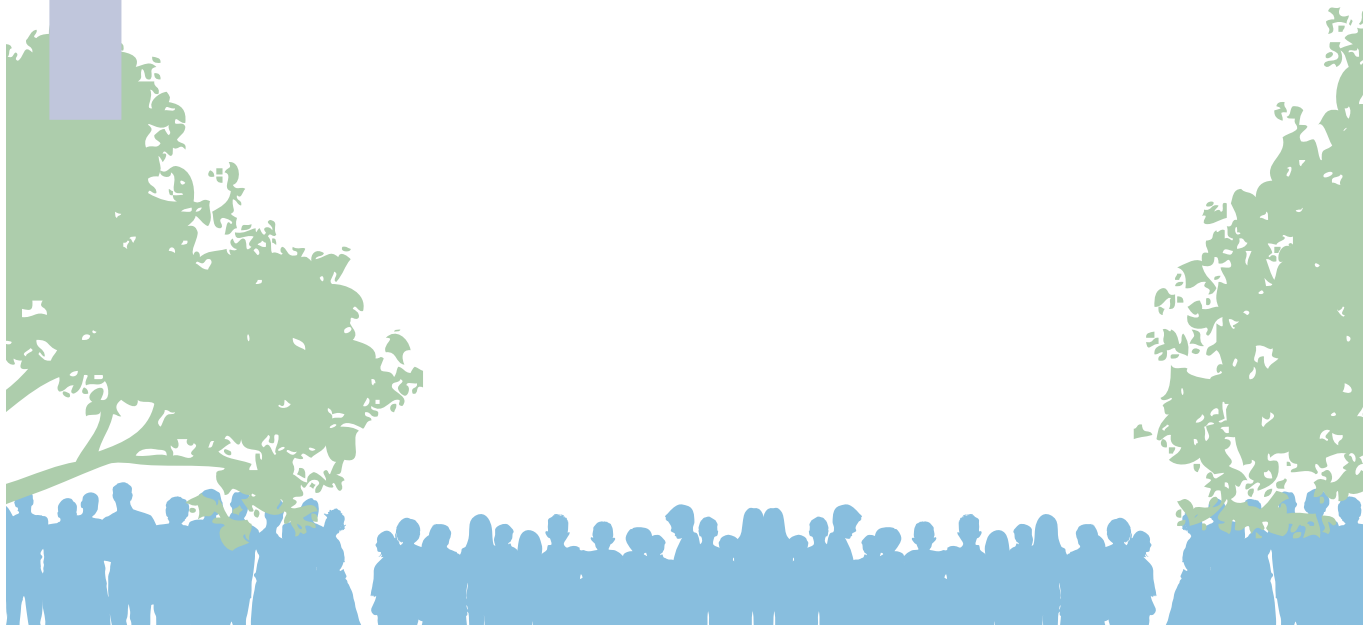
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FOREWORD



Urbanization is a mega-trend with profound implications for Africa's growth and transformation. The rate and scale of urbanization is reshaping not only the demographic profile of the continent but also economic, environmental and social outcomes. By 2035 about half of Africa's population will be living in urban areas, presenting considerable demands for employment, services and infrastructure, but creating advantages for economic growth. The urban transition is also taking place as the continent faces a demographic shift and a burgeoning youth population becoming located in urban areas.

Africa's rapid urban growth is both an opportunity and a challenge. While the prevailing narrative has focused largely on the negative externalities of urbanization of Africa, there is now an increasing recognition of its potential to drive growth and transformation. African leaders clearly affirmed the need to harness the potential of urbanization for structural transformation through the Common African Position at the Third United Nations Conference on Housing and Sustainable Urban Development (HABITAT-III) adopted in 2016. The New Urban Agenda adopted at HABITAT-III and a dedicated Sustainable Development Goal on cities and human settlements in 2015 attest to urbanization's importance.

History and experience demonstrate that urbanization is closely linked to economic growth and the transformation of economies towards productive sectors, namely industry and services. Available evidence suggests that urban and industrial development in Africa are disconnected, resulting in lost opportunities for job creation and improved well-being. It is also not surprising that Africa's cities are crippled by severe infrastructure and service gaps and

unable to generate employment at the level and scale required to meet ever-increasing demands, especially for youth.

Reconnecting urban and industrial development in Africa through deliberate policies, strategies and investments is a priority for the sustainability of both cities and industries. Cities require better performing industrialization and industrialization requires better functioning cities. At the same time, industrialization and urbanization face common challenges. Thus, the core message of the report is that deliberate efforts are needed to link urban and industrial development in the context of national development planning.

A first step in this is to recognize urbanization as an inevitable megatrend of considerable scale and speed, with cities playing a critical role in structural transformation, and especially in industrialization. Also important is to undo prevailing myths on the urban trajectory, including the assumption that curtailing rural to urban migration will reduce urban growth and that the urban agenda is primarily a social one. In reality, natural growth is the primary driver of urban growth while urbanization is at the core of economic development.

Importantly, the opportunities arising from urbanization for industrialization and from industrialization for urbanization need to be articulated in national development plans if the respective sector policies are to be linked. In turn, this should inform sector policies guiding urban and industrial development. In this regard, four key policy anchors can enable African countries to better leverage urbanization for accelerated industrialization.

The first is to respond, through domestic manufacturing, to rising demand and shifting patterns of consumption generated both as the result of urban population growth and rising incomes in cities. This can foster value addition and domestic manufacturing and enhance productivity, particularly in agriculture. However, the evidence suggests that rising and shifting urban demand is increasingly being met by imports, resulting in lost opportunities for domestic manufacturing.

A second anchor is for industrial policy to factor in the ways urban functionality can support or hinder the productivity of firms. Industrial value chains exist in a geographic context, so the functionality of cities and the connections between them should be planned to support specific targeted industrial sectors. So far, industrial policies in Africa rarely consider the implications of urbanization and economic geography for manufacturing.

A third anchor should be spatial targeting, which involves strategically directing and prioritizing investments and interventions in order to leverage the advantages of urban centers for industrial development. Spatial targeting must evaluate the benefits and the costs of investing in different cities in order to compare the returns on investment of different locations. Ultimately, it is important to redress the tendency of urban primacy in African countries and enable more balanced national urban systems, optimizing the complementary roles of different cities, both large and small.

Fourth is integrating industrialization in urban and regional policies. Industrialization is often not considered in national urban and spatial planning policies and strategies—or where it is reflected, it is not well developed and

articulated. Yet, industrial targets should be a foundation and a guiding force for urban planning and spatial policies. The barriers undermining the functionality of cities should be addressed with the intention of enabling industrial productivity, which in turn will support urban sustainability through job creation and revenues to finance investments.

Based on these priorities, the report provides a strategic policy framework anchored in national development planning to enable African countries to harness urbanization for industrialization. In doing so, the report also draws on specific country experiences in Africa illustrating the need for much more concerted efforts to address the disconnects between urban and industrial development.

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Abdalla Hamdok

Executive Secretary, a.i.

United Nations Economic Commission for Africa

EXECUTIVE SUMMARY

OPPORTUNITIES AND POLICY PRIORITIES

Africa, along with Asia, is the epicentre of global urbanization. It is undergoing a rapid urban transition and is set to be the fastest urbanizing region in the coming decades. In 1990 only a third of Africa's population was urban (31 per cent)—by 2035, the figure is projected to reach 49 per cent.

This shift has profound implications for achieving the continental and global targets for inclusive growth and transformation, including Agenda 2063 and the 2030 Agenda on Sustainable Development. Theory and global experience show that urbanization and structural transformation are closely linked—but less so in Africa, which has largely followed its own urbanizing path weakly tied to structural transformation, including industrialization. It has thus lost many opportunities for enhanced growth and productivity, for poverty reduction and for social development.

Urbanization in many African countries has not been driven by improving agricultural productivity. Indeed, most countries are urbanizing rapidly amid declining or stagnant industrial output and low agricultural productivity. In resource-rich countries, natural resource exports and related spending, largely on non-traded services, appear to be driving urban growth, generating “consumption cities.”

By 2035 Africa's urban population is projected to reach 49 per cent presenting considerable demands for employment, services and infrastructure, but creating advantages for economic growth.

Africa is at the epicentre of global urbanization.

Africa's target of structural transformation is to shift labour out of low-productivity agriculture into higher-productivity manufacturing and modern services. But the long-run trend of this shift has been dominated by the informal sector—often services—where jobs remain concentrated, many in urban areas, with detrimental effects for economy-wide productivity.

African cities thus face low productivity, tepid job creation, high informality, huge infrastructure and service gaps, weak linkages with rural areas, high levels of informality, increasing inequalities, growing environmental damage and vulnerability to climate change and weak institutional systems and capacities. Unless resolved, these impediments will undermine Africa's urban potential for structural transformation.

The challenge confronting Africa is thus to accelerate structural transformation by harnessing the rapid urban transition to promote economic diversification, with a special focus on industrialization that will create jobs, enhance access to basic services and reduce inequality and poverty.

The links between urbanization and industrialization have generally been weak or absent in Africa, underlining the urgent need to connect urban and industrial development given their interdependence and growth impacts. This Economic Report on Africa 2017 examines how to accelerate industrialization as a vehicle for structural transformation in Africa by

harnessing opportunities from rapid urbanization. It analyses the challenges and opportunities, as well as the drivers, enablers and policy levers for strengthening linkages.

Drawing on a wide array of sources—including case studies from Cameroon, Republic of Congo, Côte d'Ivoire, Ethiopia, Madagascar, Morocco, Mozambique, Nigeria, Rwanda, South Africa and Sudan—the report outlines policy intervention areas essential for ensuring that Africa's urbanization supports its industrialization. A key conclusion is

The challenge confronting Africa is to accelerate structural transformation by harnessing the rapid urban transition to promote economic diversification.

that under the right policy framework, anchored in national development planning, African countries can leverage the momentum of urbanization to accelerate industrialization for a more prosperous and equitable future.

THE URBANIZATION-INDUSTRIALIZATION NEXUS: KEY OPPORTUNITIES

URBAN DEMAND COULD BE A DRIVER OF INDUSTRIAL DEVELOPMENT

As Africa's middle class and urban consumption are on the rise, and as patterns of consumption are changing, demand for manufactured and processed goods is increasing, presenting a major opportunity for industrialization. The report highlights the automotive industry, an area that demonstrates the ability of African industrial policies to select and support high-growth sectors. The urban demand for food is also rising and changing, with a growing number of urban residents beginning to buy groceries from supermarket chains. Furthermore, African cities are facing large unmet urban housing needs that could also provide opportunities to improve urban living conditions and generate construction and service jobs. Urban development also creates demand for public infrastructure, which could be leveraged through procurement policies and support to domestic firms in the construction industry. Regional geographical advantages could be further strengthened by Africa's regional economic communities and the new Continental Free Trade Area.

DIVERSE AND CONNECTED SYSTEMS OF CITIES COULD PROVIDE INDUSTRIAL LOCATION OPTIONS

Many African countries have a high degree of urban primacy—the largest city is too large, there are few

other large or mid-sized cities, and smaller cities are too small. The report highlights the benefits of well-balanced urban systems and well-functioning cities for industrial development. It argues that a diverse urban system can offer industrial firms a variety of locational choices to meet their disparate locational needs. And while the report recalls that many countries have policies aimed at fostering urban and industrial development in smaller cities, it stresses that the decentralization of industry to lagging areas has generally been unsuccessful, as the benefits of proximity to existing competitive cities, including access to markets, labour, inputs, knowledge and infrastructure, cannot easily be replicated. Policies to create new cities have struggled in a similar fashion. Regional integration offers opportunities for further leveraging momentum of cross-border urbanization for industrial demand. Special economic zones, despite mixed success, can have a bigger impact if well managed and connected to well-functioning cities and agglomerations, rather than remaining as enclaves.

BETTER FUNCTIONING CITIES COULD PROVIDE LARGE PRODUCTIVE BENEFITS

The report argues that agglomeration economies of cities hold powerful benefits for firms, and there is evidence of these benefits at work in African industries. But in many African cities diseconomies are setting in prematurely, undermining the urban

productive advantage. Barriers to well-functioning cities are related to dysfunctional land markets, poor mobility, inadequate infrastructure, social segregation and poor urban form. Many African cities are at a critical juncture with opportunities to solve spatial and institutional challenges before a massive wave of poorly managed urban development. Urban dysfunctions are partly to blame for the high costs of living and working in African cities—for people, industry and value chains. Set against the size of urban constraints and the economic importance of cities, policies to address these issues have so far been inadequate.

Under the right policy framework African countries can leverage the momentum of urbanization to accelerate industrialization for a more prosperous and equitable future.

URBAN AND INDUSTRIAL DEVELOPMENT COULD CONNECT AFRICA

Despite the importance of cities for industrial development and vice versa, policies, planning, strategies and institutional frameworks in Africa are frequently disconnected. Rapid urbanization could be a powerful asset for industrialization provided it is harnessed through a strategic cross-sectoral policy framework anchored in national development planning. Given the multi-dimensional implications of urbanization for industrialization and economic growth, strategic interventions prioritized and implemented under national development planning would benefit urban and industrial development. Although there are positive experiences of addressing urbanization in national development vision and planning processes, there is room for improvement to ensure that the complexity, and the inter-sectoral and multi-level facets of urbanization, are fully considered.

HARNESSING URBANIZATION FOR INDUSTRIALIZATION: POLICY PRIORITIES

Today's policy decisions for urban design and infrastructure will have a long-term lock-in effect and thus shape the development path of Africa's cities. So, making cities and urban systems productive and tapping into urban advantages for industrial development is determined today, not tomorrow—requiring a concerted effort with policy levers and implementation instruments, especially with Africa soon approaching 50 per cent urbanization. Governments at all levels have to make hard choices for the scale and type of investments they need to make, and for the spatial pattern and urban form they want to see. These are partly determined by national development visions, industrial priorities and their spatial implications.

Governments at all levels have to make hard choices for the scale and type of investments they need to make, and for the spatial pattern and urban form they want to see.

A diverse urban system can offer industrial firms a variety of locational choices to meet their disparate locational needs.

POLICYMAKERS SHOULD ACT TO RECONNECT URBANIZATION AND INDUSTRIALIZATION FOR THREE REASONS:

- Better functioning cities require better performing industrialization.
- Better performing industrialization requires better functioning cities.
- Industrialization and urbanization face common challenges.

The key elements are as follows.

THE CENTRALITY OF NATIONAL DEVELOPMENT PLANNING

Under national development planning, a cross-sectoral and strategic perspective is required to link urbanization and industrialization. Sectoral policies for industrial development need to factor in the implications of Africa's rapid urbanization, and urban policies have to better integrate job-rich industrial development for sustainable urbanization. In this way, urban and industrial strategies can be explicitly linked to broader national goals such as employment creation, poverty reduction and improving the quality of life in both urban and rural areas.

INDUSTRIAL POLICIES SHOULD ENABLE SECTOR TARGETING

Sector targeting will have direct implications for industrial, urban and investment policy. Given the opportunities generated by urban consumption, related high-growth sectors should be targeted, particularly those that will respond to urban demand. Sectorally, the institutional frameworks and infrastructure to support each of the linkages in the food value chain are essential for domestic food production. Working with lead firms to raise the capacity of suppliers in this area can be a powerful policy lever. Similarly, governments should leverage both market-based and social housing to

expand the domestic construction and building materials industries. And infrastructure investments can generate jobs and develop local capacity in the construction industry, particularly where the infrastructure can be built using labour-intensive technologies. Support to domestic firms will no doubt be needed to enable them to meet quality standards.

Domestic firms will probably be unable to respond to the multiple opportunities presented by urban demand without policy support. They need an enabling regulatory framework, they need opportunities for training and skill building and they need infrastructure. Targeted support can promote these sectors and associated value chains, including policies to enhance local content sourcing, industrial upgrading, skill development, clustering and supply-chain support facilities.

When sector targeting is paired with strategically planned secondary cities and transport corridors aimed at exploiting national resource endowment such as agriculture, the impacts could be wide ranging.

SPATIAL CONSIDERATIONS ARE FUNDAMENTAL FOR INDUSTRIAL POLICIES

Industrial policies seek to answer what to produce and where to produce, and both have spatial dimensions. Strategies should be tailored to the specific spatial needs of targeted sectors and firms, and different types of cities should be developed to match different needs of industries. Spatial targeting determines which industries should go where and which cities and urban regions should receive priority in specific infrastructure investments.

As industrial value chains exist and operate in a geographical backdrop, cities and the connections between them should be planned. Countries need to adopt spatial targeting by strategically directing and prioritizing investments to leverage urban advantages for industrial development while saving on scarce resources. Such targeting must evaluate the benefits and the costs of investing in different cities to compare the returns on investments in different locations, but existing primary cities must not be neglected since they will remain central in economic diversification and growth.

When sector and spatial planning are coordinated,

Under national development planning, a cross-sectoral and strategic perspective is required to link urbanization and industrialization.

industrial projects and infrastructure investments move in tandem to priority cities and urban regions. So countries need to promote urban differentiation and support a more balanced national urban system. They can cater for spatial needs of targeted industries. They can leverage special economic zones in a connected geographical context. They can consider the geography of comparative advantages, including natural resources and networks. And they can support functional complementarity between cities in the national urban system.

Governments attempting to select a certain location for industrial development should pay attention to natural location-based characteristics and the powerful forces of infrastructure and agglomeration. And providing serviced and viable secondary city alternatives may give mature firms better locational options. Investments will be more cost-effective in cities close to the competitiveness threshold and targeted at industries already interested in locating in them. Investing in roads and connectivity between cities will, in the long run, reduce primacy and decentralize industrial development.

URBAN POLICIES IN SUPPORT OF INDUSTRIALIZATION

Governments need to take a host of actions, including better managing emerging urban form; improving public land management and the efficient functioning of property markets; investing in multi-modal mobility with an emphasis on mass transit,

Countries need to adopt spatial targeting by strategically directing and prioritizing investments to leverage urban advantages for industrial development.

non-motorized modes and freight; addressing bottlenecks in access to housing through both an enabling environment and social housing programmes; prioritizing strategic infrastructure investments; and placing industry at the front rank in planning for local economic development. For their part and more specifically, cities should promote the business services sector and its links to industry, particularly in information and communications technology and in finance.

Cities and urban agglomerations should develop local economic development strategies with an explicit focus on accelerating industrialization, mirroring national industrial policy and national urban policy, factoring in the competitive advantages of certain cities—including knowledge sharing in large, diverse cities and urban–rural linkages for smaller cities.

Agglomeration economies hinge on improved accessibility to larger markets, to pools of labour, to selections of inputs and to new knowledge and ideas. Policies are thus required to help diverse economic actors interact within cities to improve productivity. Managing urban transportation and land use are central to urban functionality. And with agglomeration economies now undercut by poor connectivity, urban mobility and infrastructure, governments should provide a network of connected transport links, including industrial areas, and supportive policies to reduce transport costs and congestion.

ADDRESSING THE GAPS—FINANCE, INSTITUTIONS, KNOWLEDGE AND IMPLEMENTATION

Policies need to be backed by financing and by institutional setups that allow for coordinated implementation and budgetary support. The institutional setup for national, industrial and urban policies should match the structure of the policies to ensure alignment between policy goals and institutional purposes and capacities. The dispersal of urban development competencies among several entities and the overlap between them is an institutional challenge. In particular, the link between urban development, economic development planning and industrialization is tenuous.

Cities and urban agglomerations should develop local economic development strategies with an explicit focus on accelerating industrialization.

Coordination with sectors other than industry is thus crucial. Energy, transport, communications and technology are especially important in shaping the urban landscape. That makes it essential to set up a mechanism for strategic coordination and harmonized approaches. Articulating key principles and parameters in a policy note or white paper can guide the drafting of urban and industrial policies. Setting up an inter-sectoral coordination platform is an important first step in addressing the multiple geographical scales of urbanization—local, metropolitan and regional.

Disconnects between policies, budgets and organizational structures are often at fault for failures in implementation. National and subnational budgetary processes, particularly for capital projects, should be based on industrial and urban policies and strategies, as should capital spending. Infrastructure investments should be targeted to improve urban functionality in support of industry for the national urban system and within cities. Engaging the private sector and coordinating investments will be critical in implementation. Also crucial is empowering urban local authorities with mandates and financial capacities to plan and manage their cities for industrial development.

A critical challenge in harmonizing urban and industrial development is the paucity of knowledge and evidence. In particular, spatial economic data, especially at subnational level, are lacking and

constrains progress. Closer cooperation is thus needed between urban agencies and national statistical offices.

In conclusion, it is vital to develop tools to guide policymakers, planners and practitioners in formulating and implementing urban and industrial policies in a coordinated way, as they focus on national targets of growth and transformation. They may appreciate the need to coordinate urbanization and industrialization, but there is still room to strengthen their capacities, based on practices that have worked in Africa and elsewhere. Regional partnerships, coupled with purpose-fit technical assistance, could well be useful in this.

Infrastructure investments should be targeted to improve urban functionality in support of industry for the national urban system and within cities. Engaging the private sector and coordinating investments will be critical in implementation.

Coordination with sectors other than industry is crucial. Energy, transport, communications and technology are especially important in shaping the urban landscape.

1. RECENT ECONOMIC DEVELOPMENTS IN AFRICA



Global economic growth tapered from 2.5 per cent in 2015 to 2.3 per cent in 2016, reflecting a slight decline in gross fixed capital formation (investment) growth and in households' final consumption growth. Growth slipped a little in the United States (US) (from 2.4 per cent in 2015 to 2.2 per cent in 2016), was unchanged in the euro area (1.7 per cent) and continued its deceleration in China (from 6.9 per cent to 6.4 per cent). The contractions in Brazil (3.8 per cent in 2015 and 3.4 per cent in 2016) and the Russian Federation (from 3.7 per cent to 1.9 per cent), were less deep (box 1.1).

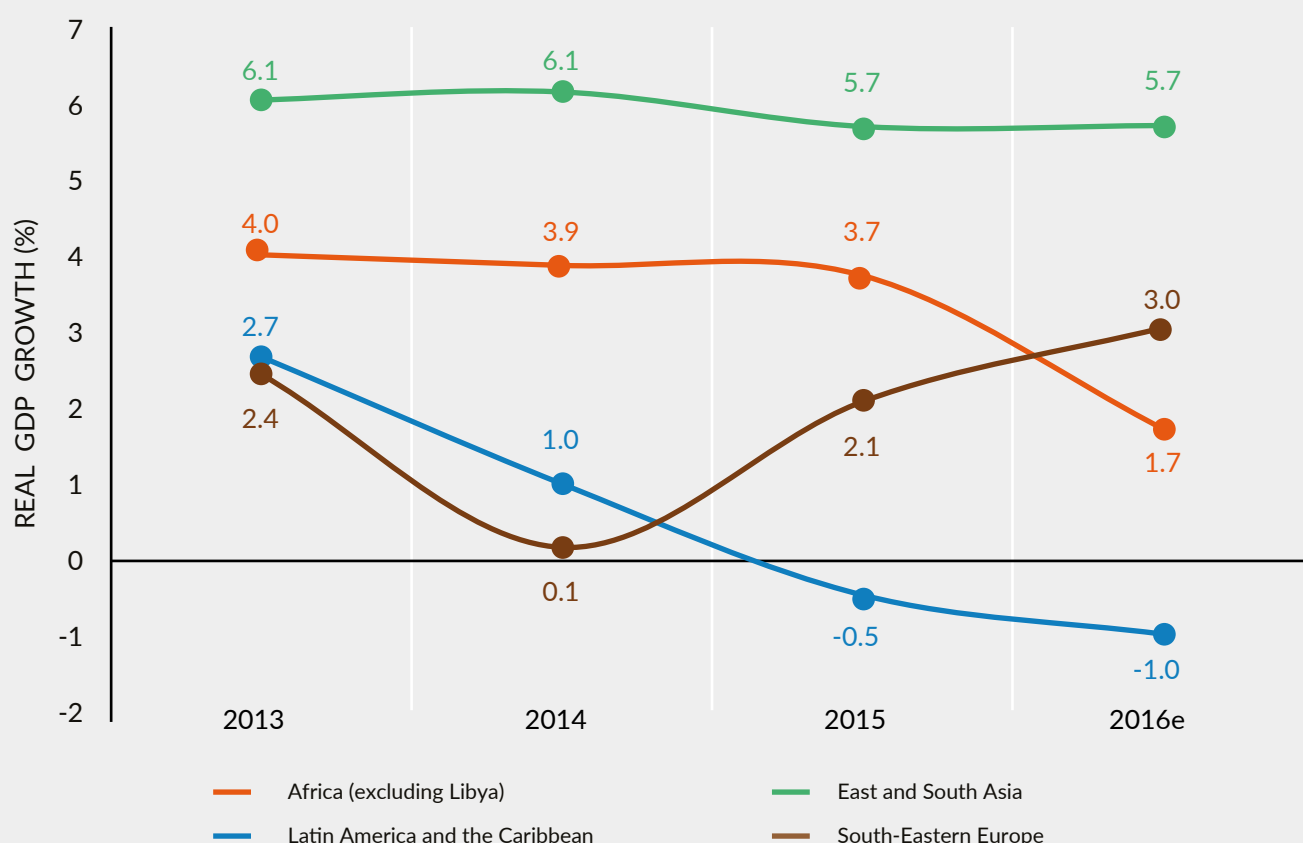
Subdued global growth prospects are attributed to persistently weak fundamentals, mainly in emerging markets and developing economies, mostly due

The decline in commodity prices since 2014 affected current accounts and government revenue, bearing down on domestic currencies and creating inflationary pressures.

to low commodity prices, diminishing investment, contracting trade, weak demand and rising inflation.

Africa's growth declined to a decade-low of 1.7 per cent in 2016 from 3.7 per cent in 2015, below both the global rate (2.3 per cent) and that in most other developing regions (figure 1.1).

FIGURE 1.1 Economic growth in Africa and emerging and developing countries, 2013–2016



Source: Based on UNDESA (2016a) and EIU (2016)
Note: e=estimates.

1.1 AFRICA'S GROWTH OUT TURN IN 2016

Economic growth in Africa fell by more than half from 3.7 per cent in 2015 to 1.7 per cent in 2016 amid weak global economic conditions, still-low (even if rising) oil and commodity prices and adverse weather conditions (drought). This decline also reflected weakening economic conditions in Africa's largest economies in 2016—Nigeria (-1.6 per cent), South Africa (0.6 per cent) and Angola (0.8 per cent)—and growth deceleration in Algeria (2.9 per cent), Egypt (3.4 per cent) and Morocco (1.7 per cent). Performances diverged: Côte d'Ivoire saw 8 per cent growth in 2016, Kenya 6 per cent, Morocco 1.7 per cent and South Africa 0.6 per cent, but Nigeria recorded a 1.6 per cent contraction and Equatorial Guinea one of 4.5 per cent.

The decline in commodity prices since 2014 affected current accounts and government revenue, bearing down on domestic currencies and creating

inflationary pressures. African countries need to adopt a counter-cyclical fiscal stance, and those continuing to achieve high economic growth such as Côte d'Ivoire (8 per cent), Kenya (6 per cent), Ethiopia (5.4 per cent), Tanzania (7 per cent) and Senegal (6.3 per cent), should build up fiscal buffers.

GROWTH CONTINUED TO DECELERATE, VARIABLY BY ECONOMIC GROUPING

Commodity prices started to recover since the end of first quarter in 2016 after falling for the last two years, but are still below their 2014 annual average level. Growth in the economic groupings—oil-exporting, oil-importing and mineral-rich economies—decelerated, to 0.8 per cent, 2.5 and 2.2

BOX 1.1 DEVELOPMENTS IN THE WORLD ECONOMY AND IMPLICATIONS FOR AFRICA

Global economic activity remained vulnerable in 2016: advanced economies struggled to accelerate growth and many commodity exporters were hindered by deteriorating terms of trade. The outlook is subject to substantial downside risks including a slowing Chinese economy, geopolitical risks and tensions, and heightened macroeconomic problems of commodity exporters if their terms of trade remain unfavourable.

World growth remains sluggish and labour markets recovered slowly.

The global economy slowed to grow by an estimated 2.3 per cent in 2016, amid weak aggregate demand in advanced countries, intensified economic stress in many commodity exporters and political instability.

Prospects appear slightly more positive with growth expected to accelerate slightly to 2.7 per cent in 2017, owing to stronger performance in emerging countries and accelerated growth in advanced economies, which combined are expected to outweigh the likely continued growth deceleration in China. Downside risks remain geopolitical tensions, erosion of trust in the effectiveness of policy levers, a sharper slowdown than currently foreseen in China, a larger than expected fallout from uncertainties surrounding the departure of the United Kingdom from the European Union—Brexit—and the yet to be confirmed steps of the new US administration.

Economic growth in developed economies slipped from 1.9 per cent in 2015 to 1.8 per cent in 2016 and is likely to stay around 1.9 per cent in 2017. That in developing countries stayed at 3.8 per cent in 2016, as commodity prices recovered somewhat and capital inflows intensified, particularly to Brazil and India.

Global unemployment remained at 5.8 per cent in 2016 mainly as labour market conditions improved in the advanced economies, although several emerging economies, including Brazil, Russia and South Africa, struggled (ILO, 2016). In 2017 the global rate is forecast to fall marginally to 5.7 per cent, even though the absolute number of unemployed is likely to surpass 200 million.

The generally weak world economy in 2016 affected Africa (Europe is Africa's main trade partner). The slowdown in China, as well as its reorientation from an investment-led to a consumption-based economy, has hit many African countries directly through a fall in demand and indirectly via lower global commodity prices. Countries such as South Africa and Nigeria, with closer trade and investment ties with the European Union and the United Kingdom in particular, might feel the impact more (given Brexit's unknowns).

Inflation kept its head down

Measured by the changes in consumer prices, global inflation pressures remained muted in 2016 at 0.7 per cent in advanced economies and 4.5 per cent in emerging and developing economies (against 0.3 and 4.7 per cent in 2015, respectively). Many large economies maintained or reinforced accommodative monetary measures, while several developing economies tightened monetary policies in a bid to head off inflationary pressures.

Fiscal balances worsened in middle-income and emerging economies

Global fiscal deficits moderated to around 3.6 per cent in 2016, but considerably above the 2.9 per cent registered in 2013–2014. Slight improvements among advanced economies were outweighed by difficulties in many middle-income and emerging economies amid low oil and commodity prices, heightened political tensions and cautious investor sentiment (IMF, 2016a). The emerging markets' combined fiscal deficit widened from 4.5 per cent in 2015 to 4.7 per cent in 2016, worse than before the 2008–2009 global financial crisis. In 2017 world fiscal deficits are projected to narrow by 0.5 percentage points in to 3.1 per cent from 3.6 per cent in 2016.

In 2016, the generally weak world economy, especially the slowdown in China, as well as its reorientation from an investment-led to a consumption-based economy, has hit many African countries directly through a fall in demand and indirectly via lower global commodity prices.

World commodity prices staged a partial recovery

The commodity prices captured by the International Monetary Fund (IMF) commodity price index began recovering in the first half of 2016 after hitting a nadir of 83.05 in January 2016—reflecting the combined effect of abundant global supply, subdued demand and a strengthening dollar. The recovery continued reaching at 114.69 in December 2016 (IMF, 2016b). In 2017 global commodity prices are not forecast to see much further pickup as the supply–demand balance is not seen changing much.

The global crude oil (petroleum) index rose from its low point of 56.05 in January 2016 as demand grew in Europe and China, US output fell and supply difficulties were felt in several countries. The price index for metals stabilized at around 120 points in the third quarter of 2016. After a rally at the start of 2016 on supply readjustment, falls in prices of copper, nickel and uranium were largely offset by increases in the prices of aluminium, iron ore and zinc. Prices of food and agricultural commodities increased after the first quarter of 2016. The food price index rose from 139.68 in March 2016 to 145.33 in December 2016, while agricultural commodities price index rose from 109.57 to 117.24 for the same period.

World trade growth and foreign direct investment stayed weak

In 2016 growth in world trade is expected to slow to 1.8 per cent from 2.4 per cent registered in the previous year (UNDESA, 2016b; WTO, 2016). Western Europe drove global trade growth, with Asian economies, China in particular, registering only small increases. Changes in terms of trade were more favourable to developed economies—increasing by 1.1 per cent in 2016 after a 1.9 per cent rise in 2015—against a decline of 2.3 per cent in 2016 following a contraction of 3.9 per cent in 2015—in emerging and developing economies. Many of this latter group depend on commodity exports.

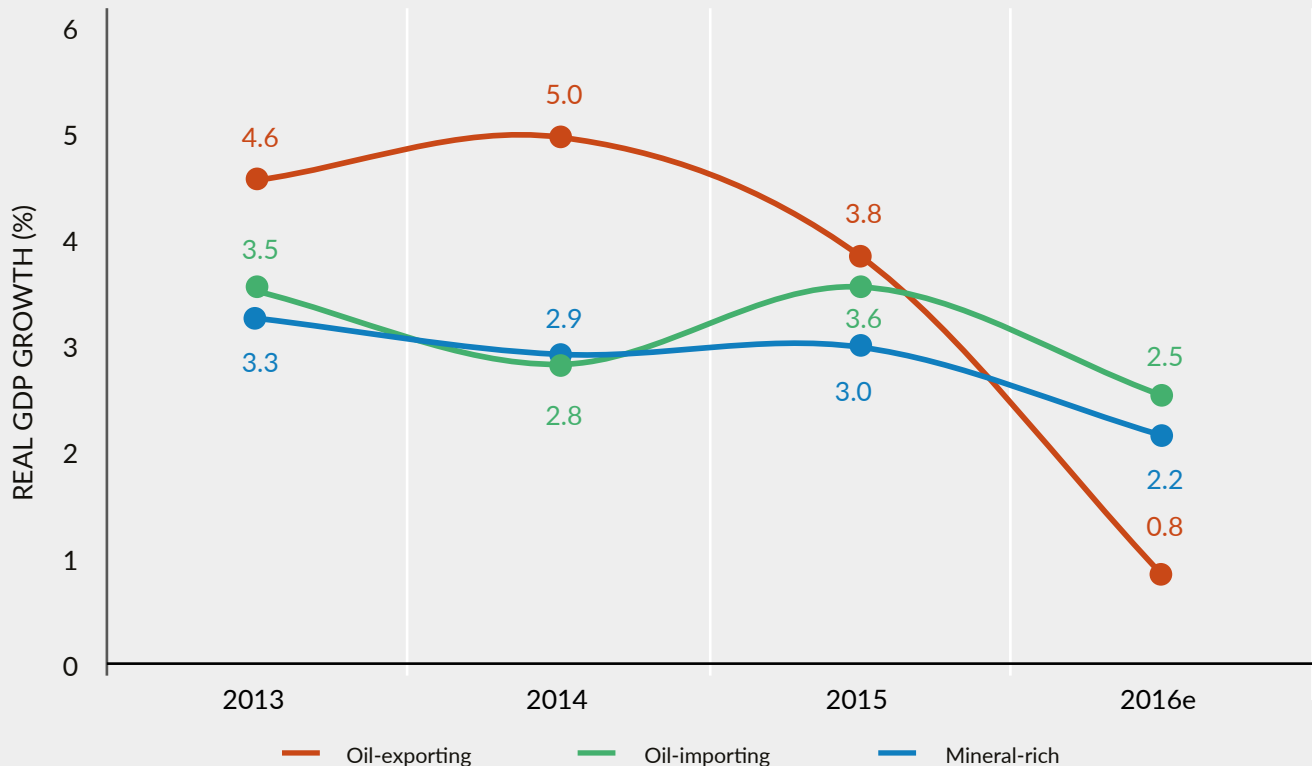
In 2016 foreign direct investment (FDI) inflows are expected to have fallen by up to 15 per cent owing to weak global demand, concerns over the prospects of many emerging countries, volatile financial markets and apprehensions over the robustness of economic growth (UNCTAD, 2016a). Over the medium term, global FDI is expected to pick up in step with guardedly more optimistic expectations of the global macroeconomy.

Medium-term prospects and downside risks

Still, the medium-term outlook remains subject to significant downside risks, given low aggregate demand, rising inequality and an ageing population in many advanced economies.

Persistently unfavourable terms of trade have highlighted structural vulnerabilities of many commodity-exporting, emerging and developing economies. (These were further heightened by diverging monetary policies of the advanced economies.) And with reduced fiscal buffers, monetary authorities in many of them are struggling to alleviate growth concerns while managing potential inflation, their capital accounts and business confidence.

Downside risks facing Africa are lower demand for exports and weaker FDI inflows than currently forecast. As world financial markets are tighter and increasingly volatile, African economies might face higher interest payments and an increased risk of contingent liabilities (IMF, 2016a, c).

FIGURE 1.2 Africa's growth performance by economic grouping, 2013–2016

Source: Based on UNDESA (2016a).
Note: e=estimates.

per cent (figure 1.2). Growth in the non-oil sector of the oil-exporting economies was not enough to cushion the impact of low oil prices, prompting policy responses in these countries (box 1.2).

EAST AFRICA SHOWED THE FASTEST GROWTH AMONG SUBREGIONS

As for the previous three years, in 2016 East African growth was the fastest on the continent, at a slightly decelerating 5.5 per cent (figure 1.3). The subregion's growth was driven by Ethiopia, Kenya, Rwanda and Tanzania. Public spending on infrastructure was the main contributor of Ethiopian growth. In Kenya investment in infrastructure and buoyant household consumption continued to drive the expansion, offsetting a decline in tourism on security concerns. In Rwanda agriculture and services continued to drive growth, though lower commodity prices (especially of coffee and tea) and poor infrastructure hurt the country's growth potential. In Tanzania robust domestic demand with growing services and manufacturing sectors were the main drivers in 2016.

Growth in West Africa fell sharply from 4.4 per cent in 2015 to 0.1 per cent in 2016 to become the slowest growing subregion, displacing Southern Africa. The step down was mainly because of the economic contraction in Nigeria, due to depressed oil prices, falling oil production, energy shortages and price hikes, scarcity of foreign exchange and depressed consumer demand. In contrast Senegal and Côte d'Ivoire performed better in the subregion, registering robust growth of 6.3 per cent and 8.0 per cent, respectively. In Senegal higher public and private investment, particularly in energy, infrastructure, agriculture, fisheries, tourism, textiles, information technology and mining continued to underpin growth, though power shortages need to be overcome. Côte d'Ivoire's growth was underpinned by improvements in the investment environment and increased infrastructure spending in transport and energy, even if bad weather weighed on agricultural growth. Ghana's growth decelerated to 3.8 per cent in 2016—the slowest in two decades—reflecting tensions related to recent elections, lower consumer confidence, reduced oil production and low oil prices.

BOX 1.2 SOME POLICY RESPONSES OF AFRICAN OIL-EXPORTING COUNTRIES TO THE COMMODITY PRICE SLUMP

Falling export revenues hit these countries' trade balances and current accounts, especially Nigeria, Angola and Algeria, which for the first time this decade recorded trade deficits. The external position was further undermined by declining FDI and other capital inflows, leading to policy interventions that depleted foreign exchange reserves (box figure) and forced the authorities in countries with pegged exchange rate regimes, like Nigeria, to relax them. Currency pressures also led to rising inflation, prompting central banks to raise interest rates and prevent further currency depreciation against the dollar, leading to very low real interest rates in some countries like Nigeria. Further currency depreciation among oil-exporters appears inevitable.

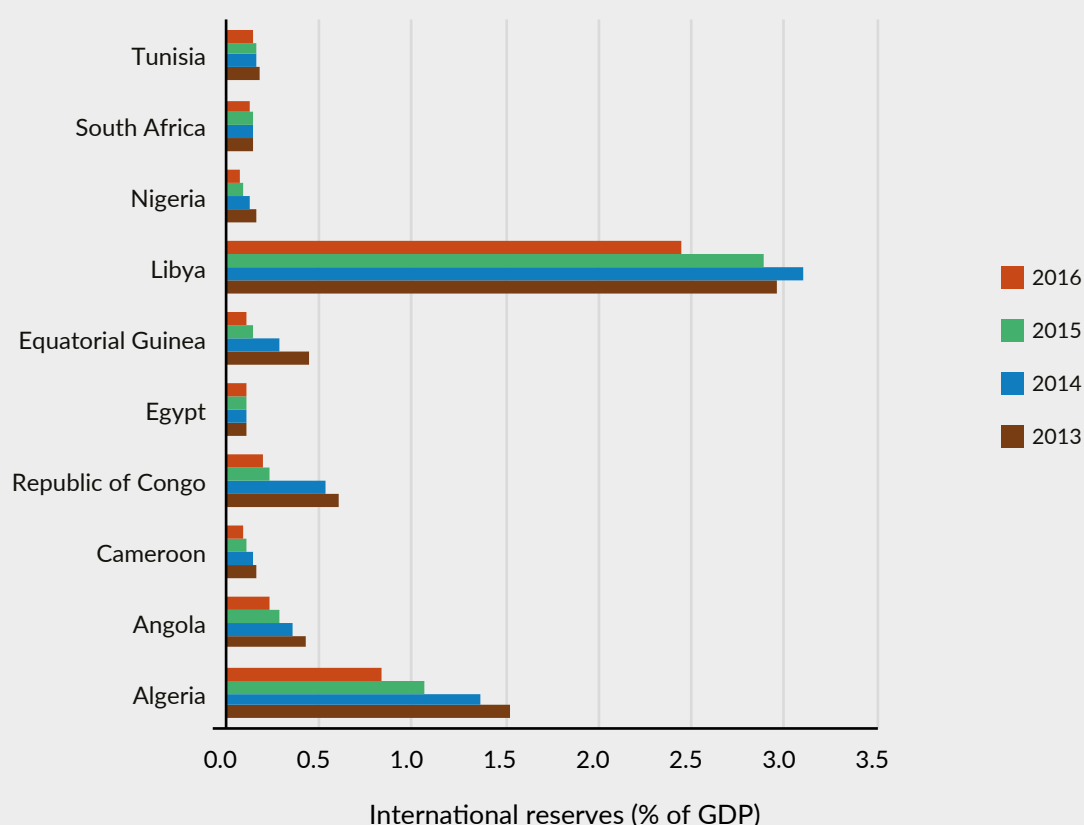
Falling oil-export revenues also hit government incomes, deteriorating fiscal positions. While in most oil-exporters the fiscal deficit remains moderate, prospects for medium-term fiscal space are pegged to individual location on the debt-sustainability curve. With the oil price recovering, those countries with low debt-to-GDP ratios, like Nigeria, could direct any gains in this space to financing growth-enhancing priority sectors like energy, infrastructure and agriculture.

Other African oil-exporters, like Equatorial Guinea and Republic of Congo, whose currencies are pegged, were unable to devalue their currencies. Their options included departure from monetary union, an adjustment of the currency band at which the Central African CFA franc is pegged to the euro, or a break of the peg altogether. Oil accounts for 90 per cent of Equatorial Guinea's GDP and virtually all of its exports. But Republic of Congo, with a healthy international reserves position of greater than 150 per cent of GDP in 2013, has a comfortable cushion to weather the current crisis.

Libya, the fifth largest African oil-producer for which oil constitutes 95 per cent of export earnings, is in serious danger: financing fiscal requirements with its international reserves, has experienced the fastest rate of reserve depletion by more than one fifth after January 2014. This has raised the urgency for reviewing its 2002 peg of the dinar to the IMF's Special Drawing Rights, which maintains currency stability.

African oil-exporters have few options to protect their currencies against lower oil prices. Short-term palliatives like defending their currencies with foreign reserves is not sustainable, while diversification of sources of export earnings can only be considered over the medium to longer term.

BOX FIGURE 1.1 International reserves (% of GDP) in selected African economies, 2013–2016



Source: EIU (2016).

Growth in Southern Africa dropped from 2.5 per cent in 2015 to 1.0 per cent in 2016, reflecting sharply decelerating growth in South Africa and Angola. Stronger growth in Mauritius (3.6 per cent) and Mozambique (4.2 per cent) were brighter spots for the subregion.

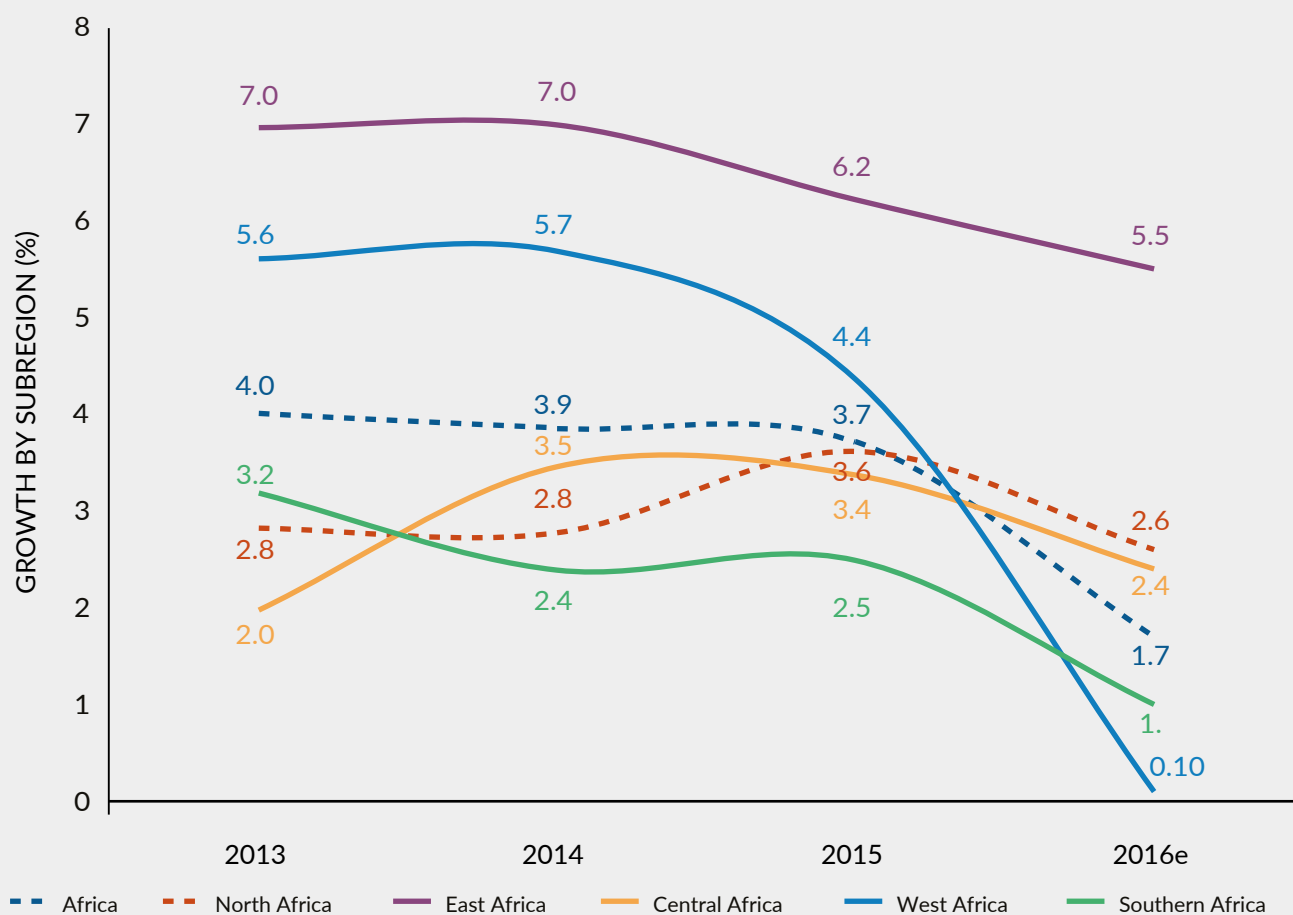
Factors weighing on growth in South Africa, the subregion's largest economy, included low commodity prices, drought and shortage of electricity, tighter financial conditions and low business and consumer confidence. Labour productivity continued its post-2011 downtrend. A rise in final consumption expenditure mainly driven by increase in government expenditure picked up the pace of growth in Mauritius. Mozambique registered growth of 4.2 per cent in 2016, despite a slump in government consumption, slow inward investment and poor business sentiment, and weather-related disruptions to agriculture.

Growth in Central Africa moderated from 3.4 per cent in 2015 to 2.4 per cent in 2016, reflecting

the balance of growth in Cameroon (5.3 per cent), Central African Republic (5.1 per cent), Chad (1.1 per cent), Gabon (3.2 per cent) and Republic of Congo (1.6 per cent), and contractions in Equatorial Guinea (-4.5 per cent). Cameroon's growth slipped to 5.3 per cent in 2016 given a fall in oil output growth and low oil prices. Chad's expansion slowed as the non-oil economy was hit by spending cuts and security problems. CAR's growth accelerated, with political stability boosting consumption and investment. Expansion in Republic of Congo accelerated as new oilfields became operational, though weak global oil prices meant major cuts in public investment and weighed on growth in the non-oil sector. Gabon's expansion declined to 3.2 per cent, triggered by low oil prices affecting government revenues and ultimately public investment in infrastructure. Equatorial Guinea's economy shrank further in 2016, in line with falling oil output and low prices, as well as a reduction in public investment.

North Africa witnessed a decline in growth to 2.6 per cent in 2016 from 3.6 per cent the previous

FIGURE 1.3 Africa's growth by subregion (%), 2013–2016



Source: Based on UNDESA (2016a).

Note: e=estimates.

year, driven by slower growth in Algeria, Egypt and Morocco. Low oil prices weighed on public investment and private consumption in Algeria; Egypt was hurt by tourism's weaker performance and a consequent decline in foreign currency earnings; and Morocco was affected by drought which hit agriculture, crimping private consumption and government spending.

PRIVATE CONSUMPTION AND INVESTMENT STAYED AFRICA'S MAIN GROWTH DRIVERS

On the expenditure side, the solid economic growth performance in Africa in 2014 and 2015 was largely underpinned by a positive contribution from private consumption, an increase in government spending on infrastructure and a positive contribution from investment (figure 1.4). Despite low growth registered in 2016 it was still driven mainly by private consumption and investment.

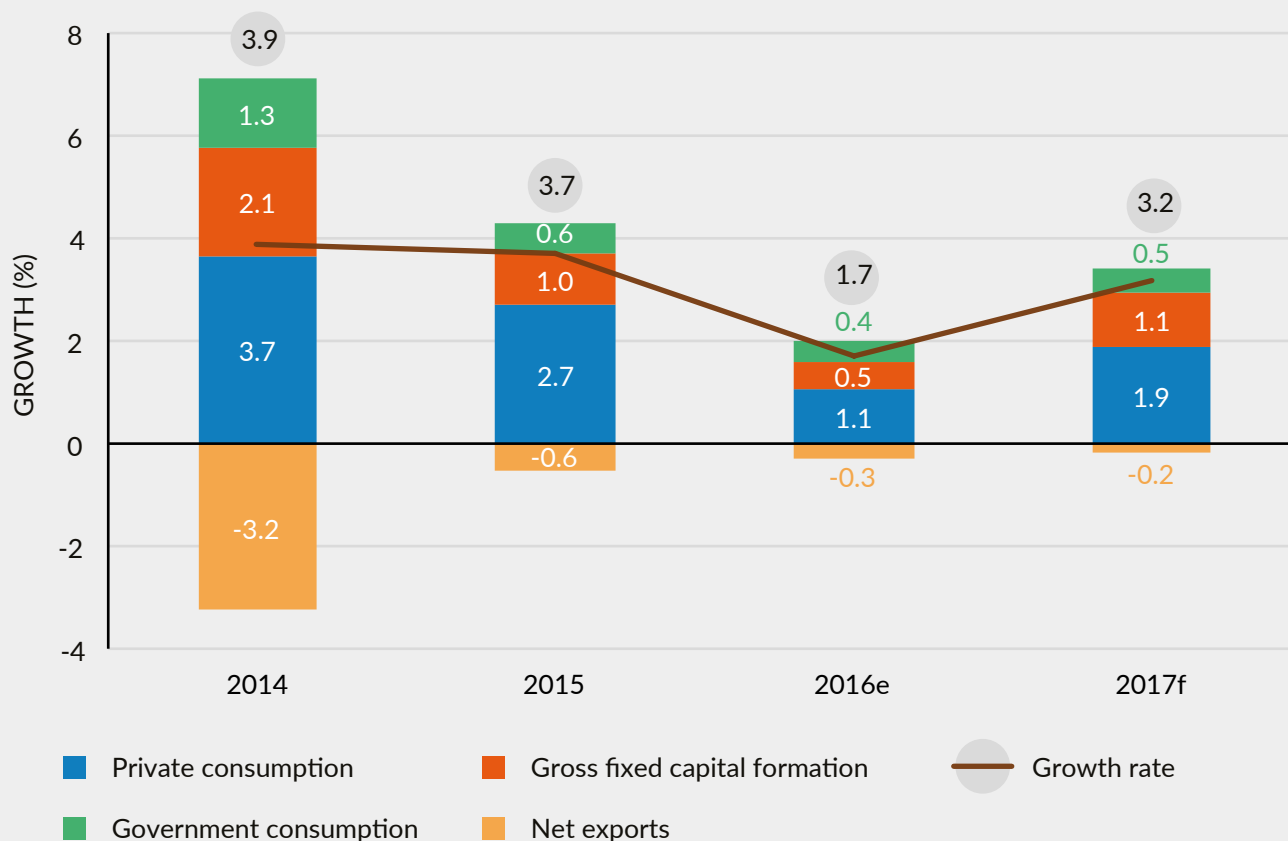
STRUCTURAL TRANSFORMATION AND PRODUCTIVITY

Recent literature on Africa has emphasized the importance of successful structural transformation if the continent is to sustain the growth performance of the first decade or so of this century. African economies should diversify into higher value added services and goods, while continuing to raise agricultural productivity, even as agriculture's share in the economy declines (Badiane and Collins, 2014).

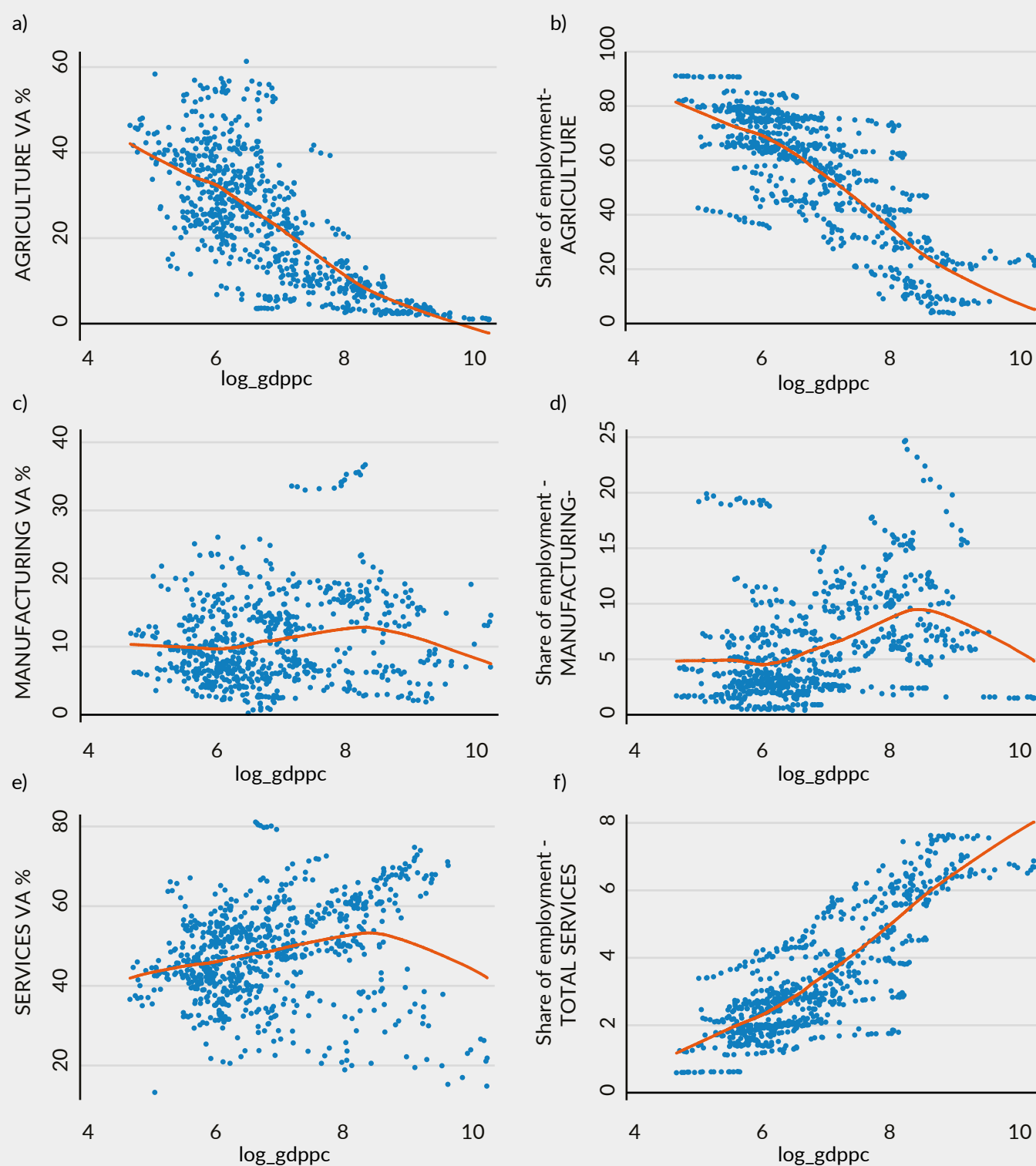
In Africa's structural transformation in 2000–2014 (figure 1.5), increases in GDP per capita were

Solid economic growth performance in Africa in 2014 and 2015 was largely underpinned by a positive contribution from private consumption and investment.

FIGURE 1.4 Africa's GDP growth and associated growth components, 2014–2017



Source: Based on UNDESA (2016a) and EIU (2016).
Note: e=estimates; f=forecast.

FIGURE 1.5 Africa's structural transformation, (%), 2000–2014

Notes: VA % is value added as a percentage of GDP; log_gdppc is the log of GDP per capita over the period 2000–2014 for 52 African countries (excluding Somalia and South Sudan).

Source: Based on World Bank (2016a) and ILO (2015).

associated with a decline in the value-added and employment shares in agriculture, though the speed of the process was more pronounced in the relationship between employment and GDP per capita, indicating the movement of a significant proportion of labour out of agriculture (see figure 1.5 panels a and b).

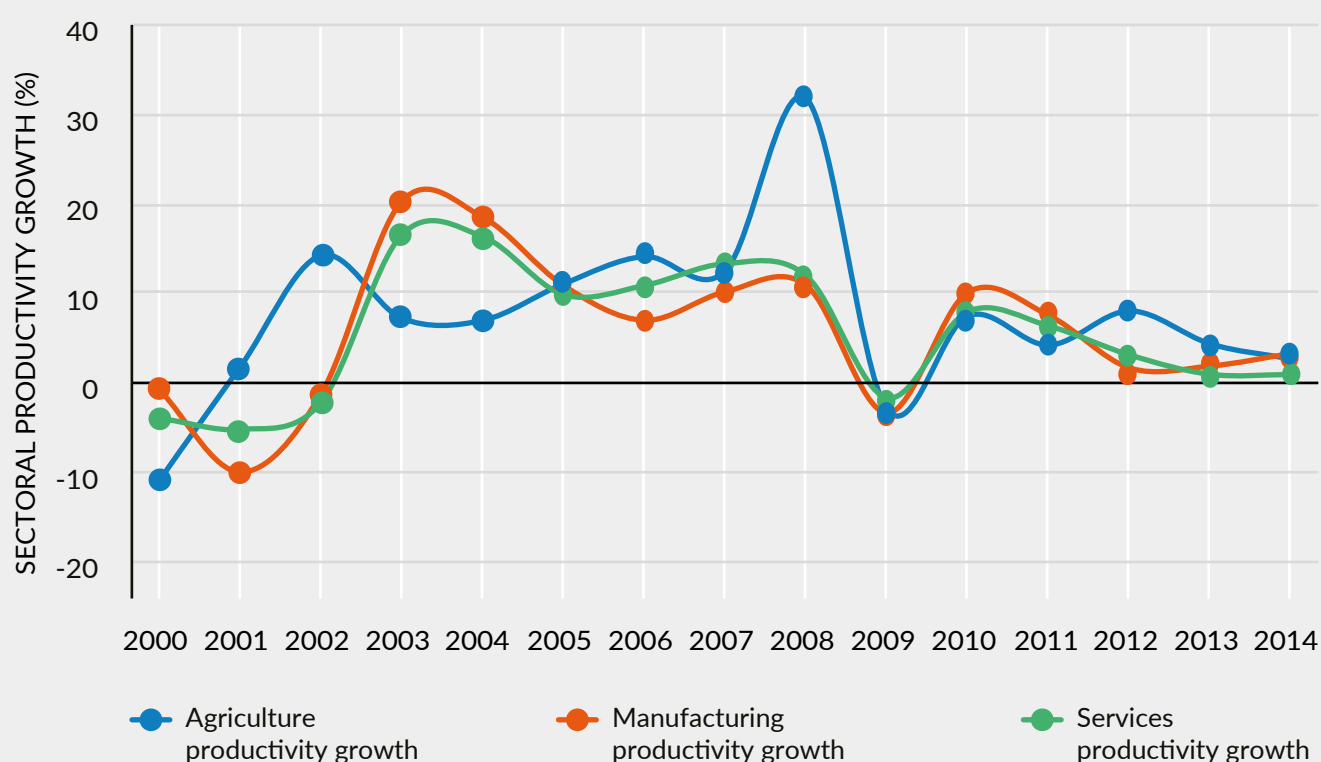
Worryingly, the structural transformation has also been associated with a decline in agricultural productivity growth from 9.9 per cent in 2000–2008 to 4.0 per cent in 2009–2014 (figure 1.6).

Manufacturing value added gradually increased as GDP per capita rose in the early 2000s, but declined at the higher stages of development, indicating the failure of African countries to maintain the sector's growth momentum (figure 1.5 c and d). This decline in later years of development could be attributed to the slowdown in the global economy and decline in commodity and oil prices as countries struggled to fully recover from the global financial crisis. It could also be attributed to the drop in manufacturing productivity growth from an average of 7.3 per cent in 2000–2008 to an average of 3.5 per cent in 2009–2014. Service sector value added growth

During 2000–2014, increases in GDP per capita were associated with a decline in value-added and employment shares in agriculture.

climbed in the earlier years of the 2000s as GDP per capita increased, before decreasing in the later stages of development (see figure 1.5). However, the share of employment in services continued to rise steadily over the period 2000–2008, a trend that could support the narrative that a greater proportion of labour has reallocated from agriculture to services with lower productivity (McMillan et al., 2014 for more details). Service sector productivity growth declined from an average of 7.5 per cent in 2000–2008 to an average of 3.0 per cent over 2009–2014—the lowest among the three sectors.

FIGURE 1.6 Trends in sectoral productivity growth in Africa, (%), 2000–2014



Source: Based on World Bank (2016a) and ILO (2015).

TABLE 1.1 Labour market outlook for Africa, (%), 2000–2016

	2000–2007	2008–2013	2014E	2015P	2016P
Employment growth	3.0	2.8	2.9	2.9	2.9
Labour force participation rate	68.8	69.4	69.6	69.7	69.7
Unemployment rate	9.9	9.4	9.2	9.2	9.2
Labour productivity growth	2.7	0.9	4.0	1.2	2.3
Global labour productivity growth	2.6	1.9	1.8	2.5	2.7

Source: Based on ILO (2015).

Note: e=estimates; p=projections.

SUBDUED LABOUR PRODUCTIVITY

Labour productivity is one of the key features underlying structural transformation, yet Africa has recorded subdued labour productivity growth, mainly due to lack of diversification in its economic activities. Growth in output per worker declined from 4.0 per cent in 2014 to 1.2 per cent in 2015 and is projected to have grown at 2.3 per cent in 2016, which will be below the global average of 2.7 per cent (table 1.1), and below the estimate for South-East Asia and the Pacific (3.8 per cent). It is, though higher than the projection for Latin America and the Caribbean (1.4 per cent) in 2016.

Still, some African countries registered productivity growth ranging between 4 and 4.7 per cent in 2016, including Côte d'Ivoire, Democratic Republic of Congo (DRC), Ethiopia, Ghana, Nigeria, Rwanda, Liberia, Sierra Leone and Zambia. Although slower than China's figure (6.6 per cent), these rates are in line with India (4.7 per cent) and faster than Argentina (1.1 per cent) and Brazil (0.8 per cent). A gradual diversification of economies from commodities has helped to expand new sectors in manufacturing and services, albeit with slower productivity growth (ILO, 2015a).

The productivity in Africa is projected to grow at an average of 2.8 per cent in 2016, mirroring recovery in global commodity prices, increased investment in non-oil sectors by most economies and their economic diversification (figure 1.7). However, oil-importing and agricultural commodity exporting countries, growing at an average of 2.4 per cent, are projected to lead the groupings' output growth per worker over 2014–2016. These two groupings' 2016 figures are much higher than the average

growth in 2000–2008, of 1.8 per cent and 1.6 per cent, respectively. This could point to their resilience to the impact of the low global commodity prices and growth that have affected oil-exporting and mineral-rich countries.

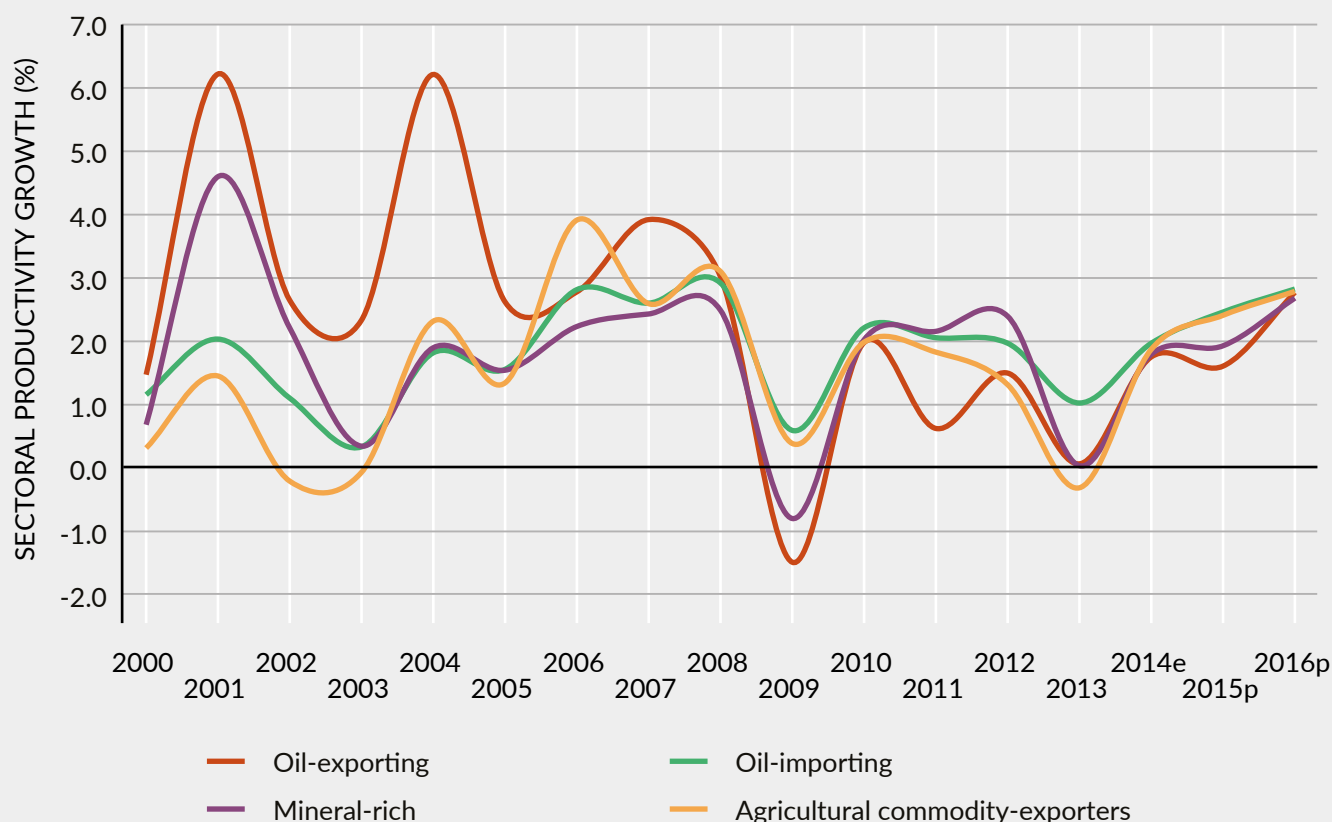
Africa's labour force participation and unemployment rates have moderated around 69.7 per cent and 9.2 per cent since 2014 (see table 1.1), while male and female unemployment has stabilized around 8.0 per cent and 11.1 per cent respectively since 2014. Women suffer from higher unemployment rates across all subregions, but they are worse in North Africa. Youth have an average unemployment rate across Africa of 16.8 per cent over 2014–2016 (ILO, 2015a).

By subregion, despite the sharp downturn in West Africa, the subregion's positive growth trend in labour force participation is expected to continue. Southern Africa is also continuing to enlarge its labour force. Labour force participation rates are likely to change little in other regions over the coming years (ILO, 2015b).

However, large gender gaps in these rates are

Productivity in Africa is projected to grow at an average of 2.8 per cent in 2016, mirroring recovery in global commodity prices, increased investment in non-oil sectors by most economies and their economic diversification.

FIGURE 1.7 Productivity growth by African economic grouping, (%), 2000–2016



Source: Based on ILO (2015a).

Note: e=estimates; p=projections. Mineral-rich countries and agricultural exporters are on the right axis.

seen staying in North Africa, both with the largest subregional gender gap and a gap of more than 50 percentage points in most of its countries. This is in sharp contrast to some countries in East and Southern Africa, where women have higher labour participation rates than men: Burundi, Malawi, Mozambique and Rwanda notch up 83.4, 84.3, 84.7 and 85.8 per cent, respectively, with their male counterparts having 82.2, 82.0, 82.4 and 84.9 per cent, respectively (ILO, 2015a).

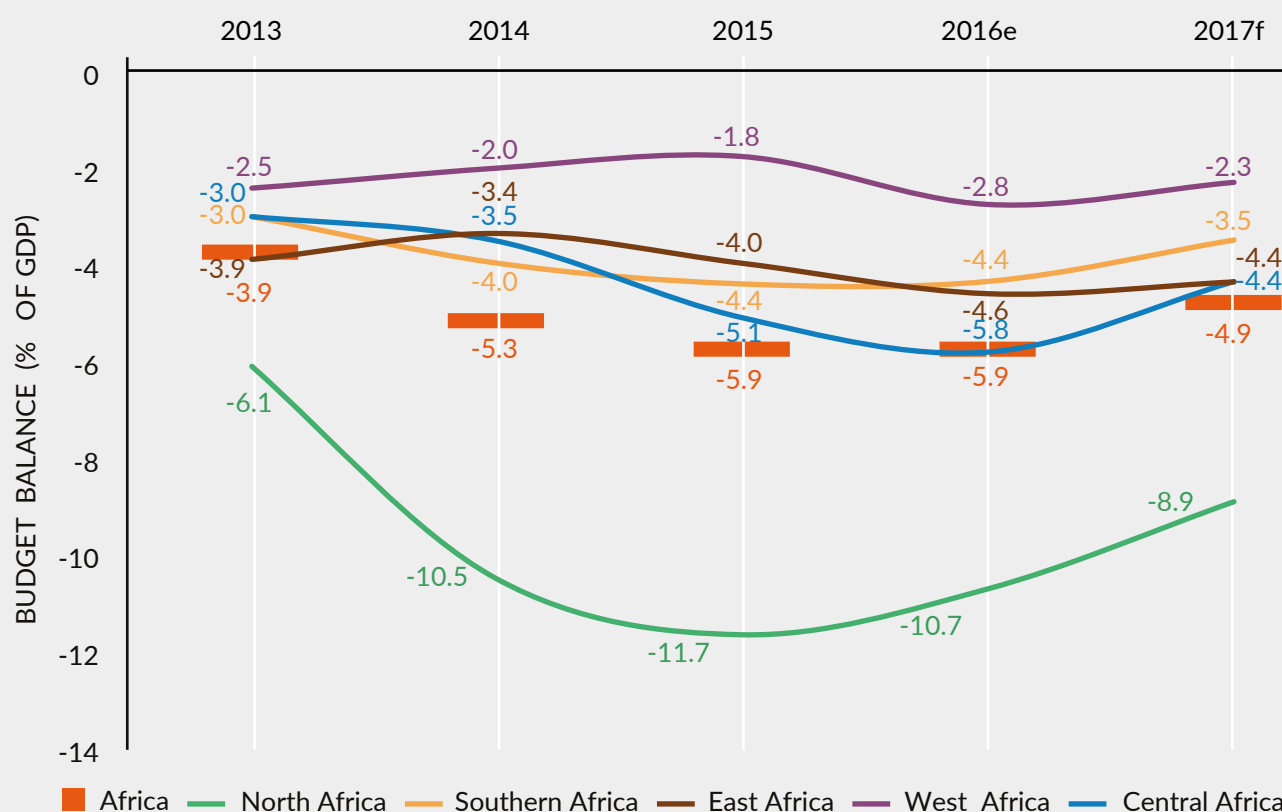
AFRICA'S FISCAL DEFICIT REMAINED STABLE IN 2016

Africa's overall fiscal deficit in 2016 remained unchanged from 2015 at 5.9 per cent (figure 1.8). North Africa continues to have the largest fiscal deficit in the continent despite a slight decline due to a stable fiscal deficit in Algeria and a narrowing one in Egypt. Spending cuts on large infrastructure projects in Algeria were offset by a further rise

Africa's overall fiscal deficit in 2016 remained unchanged from 2015, as a result of spending cuts and increased utilization of external reserves to fund development projects in a number of countries.

in social spending, while the phasing out of fuel subsidies helped to reduce Egypt's fiscal deficit.

The fiscal deficit in Southern Africa remained unchanged at 4.4 percent of GDP. Although South Africa's increased because of slow growth in revenue and heavier spending, this was counterbalanced by declining deficits elsewhere—in Mozambique (capital spending cuts), Namibia (fiscal consolidation) and Zambia (a rise in government revenue on improved tax enforcement and cuts in spending due to postponement of large investment projects).

FIGURE 1.8 Average budget balance by subregion, (% of GDP), 2013–2017

Source: Based on EIU (2016).
 Note: e=estimates; f=forecasts.

East Africa's fiscal deficit widened somewhat from 4.0 to 4.6 per cent in 2016, reflecting expansionary fiscal policies, mainly in Ethiopia (notably spending on infrastructure), in Kenya (a new railway line, sharply increased government salaries and transfers to new counties) and Uganda (hydropower projects).

The fiscal deficit widened in West Africa in 2016, from 1.8 to 2.8 per cent of GDP, largely reflecting in Nigeria an increase in public spending, especially on security; in Côte d'Ivoire an increase in the minimum wage, higher security spending and heavier public investment on infrastructure; and in Ghana, election-related expenses and greater spending on public sector wages.

In Central Africa the fiscal deficit widened from 5.1 percent in 2015 to 5.8 per cent of GDP in 2016, mainly owing to expansionary fiscal policies in Cameroon arising from public expenditure on transport and power infrastructure and lower oil revenue; in Equatorial Guinea occasioned by increased public investment in infrastructure and lower oil revenue, and in Congo due to government spending on public sector wages and lower oil revenue.

Largely driven by low oil prices, as a group the oil-exporting countries' fiscal deficit widened further from 6.2 to 6.5 per cent of GDP in 2016. In contrast oil-importing countries' fiscal deficit improved marginally from 5.6 to 5.5 per cent. The mineral-rich countries' fiscal deficit was the second highest in the continent, though it slightly declined from 6.5 per cent of GDP in 2015 to 6.1 per cent in 2016.

East Africa's fiscal deficit widened somewhat from 4.0 to 4.6 per cent in 2016, reflecting expansionary fiscal policies mainly in Ethiopia, Kenya and Uganda.

AFRICA'S CURRENT ACCOUNT DEFICIT REMAINED STABLE

The continent wide current account deficit stayed at 7.0 per cent of GDP in 2016 (figure 1.9), reflecting no or little change in North, Southern and West Africa. The current account deficit widened among oil-exporting countries from 7.7 per cent of GDP in 2015 to 8.2 per cent in 2016, offset by a narrowing from 6.3 per cent to 6.1 per cent among oil importers, and from 8.8 per cent to 8.3 per cent in 2016 among mineral-rich countries.

The decline in oil and commodity prices cut into export earnings, especially in emerging economies, as Africa experienced a sharp decline in trade (see section 1.2). The current account deficits to some extent have depleted international reserves and increased dependence on external debt and investment.

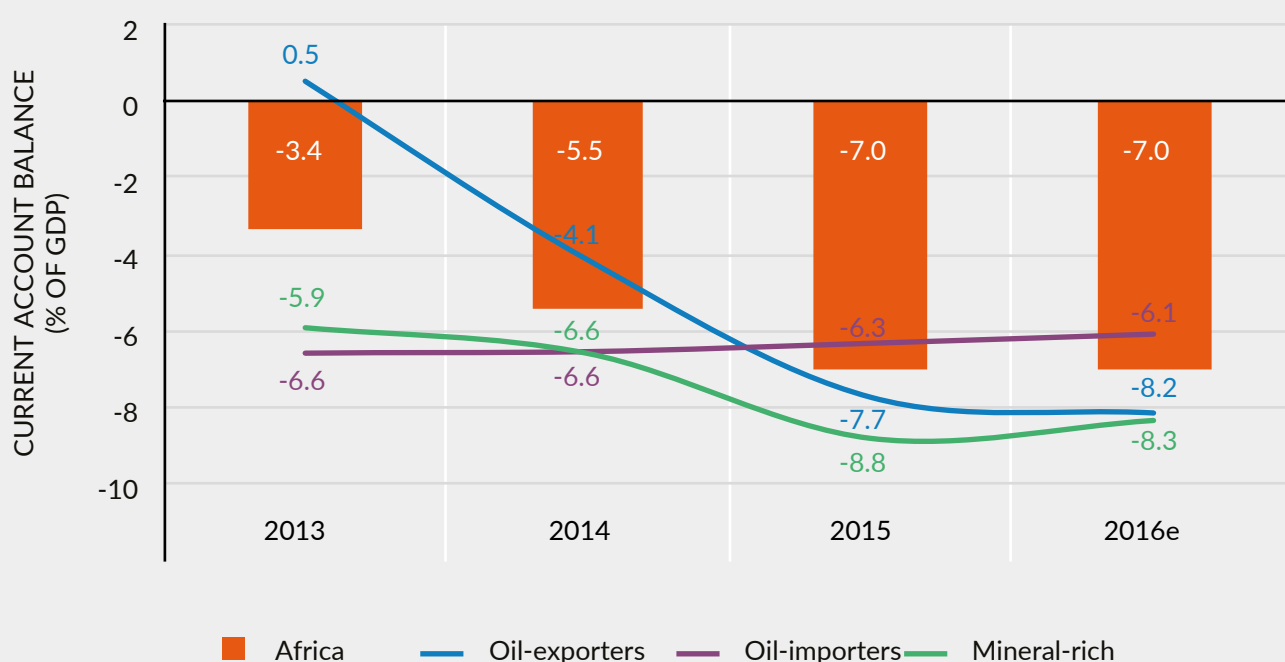
The decline in oil and commodity prices cut into export earnings, as Africa experienced a sharp decline in trade.

MOST COUNTRIES EXERCISED TIGHT MONETARY POLICY

Most countries, including some larger economies, followed a tight monetary stance to limit the impact of inflation from a weakening currency and/or increases in regulated electricity prices, as central banks raised policy rates in, for example, Angola, Nigeria and Egypt.

However, Algeria, Côte d'Ivoire, Cameroon, Kenya and Morocco among others pursued a loose stance. Kenya and Morocco cut their policy interest rates to 2.25 per cent and 10 per cent, taking advantage of subdued inflationary pressures, and Algeria reduced its discount rate for the first time in almost a decade from 4 per cent to 3.5 per cent, largely because of declining liquidity due to low oil prices. Most countries in Central and West Africa also adopted loose policies, as their common currency (the CFA franc) is pegged to the euro, forcing them to stay in line with the ultra-loose monetary policy of the European Central Bank.

FIGURE 1.9 Current account deficit, (% of GDP), 2013–2016



Source: Based on EIU (2016).
Note: e=estimates.

DOMESTIC CURRENCIES CONTINUED TO DEPRECIATE AMID LOW COMMODITY PRICES

Low commodity prices and large fiscal and current account deficits exerted continued downward pressure on domestic currencies, leading to further depreciation in most of Africa's big economies. Angola and Nigeria devalued their currencies, and Egypt floated its exchange rate in return for IMF funding of \$12 billion over three years. The CFA franc is likely to depreciate gradually on expected faster growth in the US than the EU, and on the gradual rise in US interest rates.

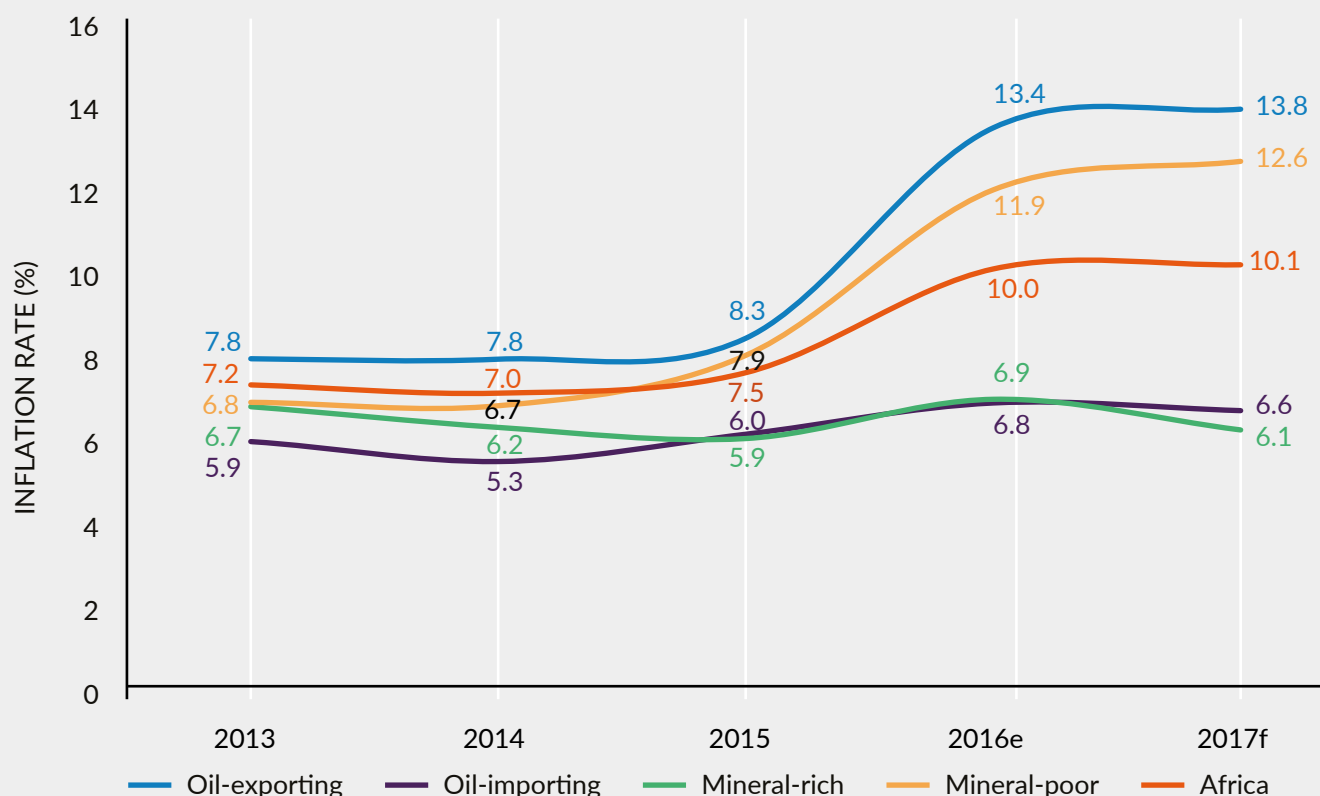
South Africa's rand was volatile in 2016, reflecting domestic policy uncertainty and a tightening monetary policy bias in the United States. In contrast countries such as Ethiopia and Ghana managed slight or stable depreciation, while Kenya saw its currency appreciate from 2015 owing to reduced dependence of the economy on some commodity exports. Ethiopia continued to manage the exchange rate with price-setting mechanisms in a gradual devaluation policy to mitigate imported

inflation while improving export competitiveness. The Ghanaian cedi was stable in 2016, though gradual depreciation is expected due to a delay in issuing eurobonds, which could put pressure on external reserves.

INFLATION INCREASED

African inflation climbed to 10 per cent from 7.5 per cent and is expected to remain at about that rate in 2017 (figure 1.10). Domestic supply-side factors (drought), rising electricity prices and falling currencies were factors. Inflation picked up in all subregions except Central Africa and East Africa, where, respectively, it declined to 2.3 per cent in 2016 from 2.8 per cent and to 5.3 per cent from 5.9 per cent, the latter largely on downward trends in Ethiopia, Kenya and Tanzania. In Ethiopia despite the 2015/16 drought's impact on local food prices, inflation fell owing partly to the decline in prices of imported food, fuel and industrial raw materials. Further declines are less likely given fiscal deficits and a depreciating local currency. In Kenya inflation was moderated by lower oil prices and slower growth in food prices. Tanzania's decline reflected

FIGURE 1.10 Inflation by economic grouping, (%), 2013–2017



Source: Based on UNDESA (2016a).
Note: e=estimates; f=forecasts.

lower global prices of oil and food, offsetting the effects of currency depreciation, though inflation is still a risk due to potential weather-related shocks to domestic food production.

Inflation in North Africa picked up from 8.3 per cent in 2015 to 8.7 per cent in 2016, heavily influenced by Algeria and Egypt, which saw currency depreciation and increases in regulated prices of electricity.

In West Africa inflation surged from 8.6 per cent to 13.0 per cent, the highest on the continent, marking the net effect of upward and downward inflation in countries. Inflation in Nigeria rose from 9.6 per cent to 15.2 per cent on currency depreciation, in Ghana from 13 per cent to 18.1 per cent on increased utility and fuel prices, in Côte d'Ivoire from 1.2 per cent to 1.7 per cent owing to the currency peg to the euro (largely stifling imported inflation), in Guinea from 8.2 per cent to 8.2 per cent due to lower global food and oil prices, and in Mali from 1.4 per cent to deflation of 1.3 per cent on lower oil prices and increased local cereal production.

African inflation climbed to 10 per cent from 7.5 per cent, due to supply-side factors, rising electricity prices and falling currencies.

Inflation in Southern Africa climbed sharply from 6.6 per cent in 2015 to 11.4 per cent in 2016 owing mainly to a steep rise in food prices, currency depreciation and a hike in energy prices. Lower oil prices provided some relief, and monetary tightening may also have constrained demand-side pressures in most countries. But in South Africa the drought's impact kept inflation at 6.6 per cent above the central bank's target ceiling 3.6 per cent in 2016, with spillover effects to other countries in the subregion given the country's position as a major trading partner and source of most imports.

1.2 AFRICA'S TRADE PERFORMANCE

CONTINUED DECLINE IN AFRICA'S MERCHANDISE TRADE

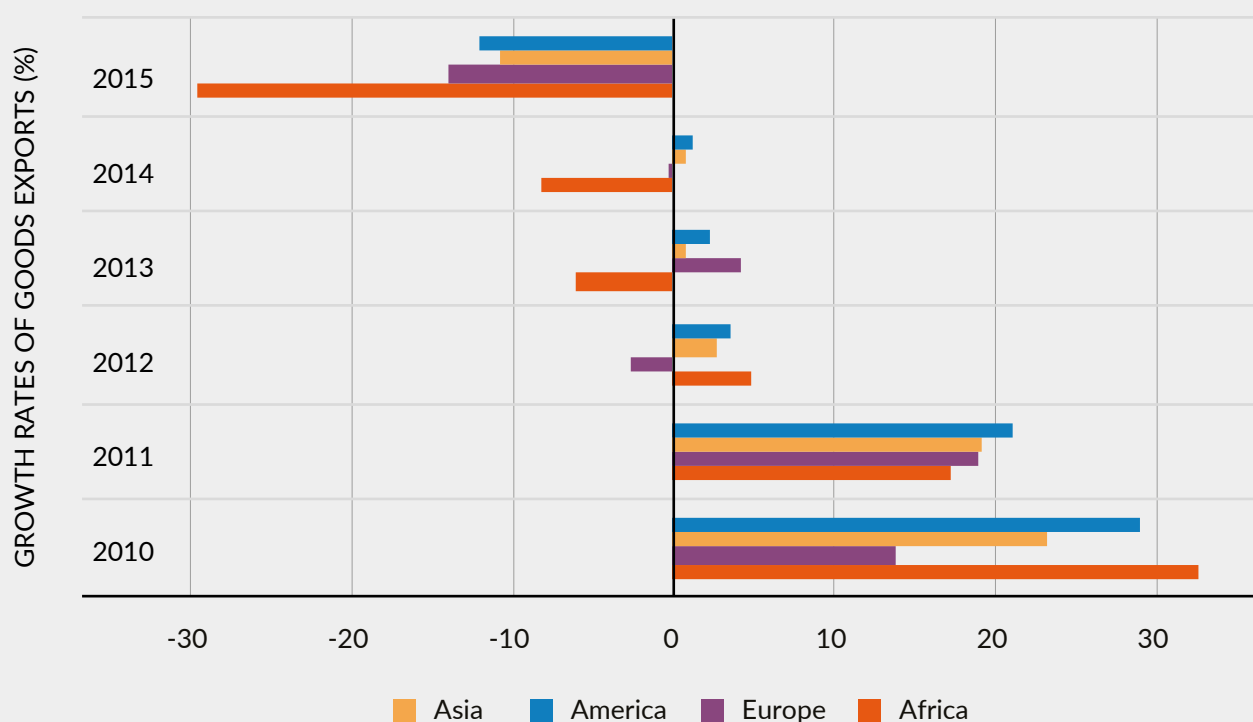
After the global financial crisis, Africa's goods exports rebounded to pre-crisis levels by 2010, reflecting higher agricultural output in most of East and Southern Africa, greater investment in mining in Mozambique, Niger, Sierra Leone and Zambia,¹ and China's still-rising demand for primary commodities,

Europe remained the main destination for the continent's exports over the period, but its role in African trade has declined as Asia has become a bigger trading partner for many African countries.

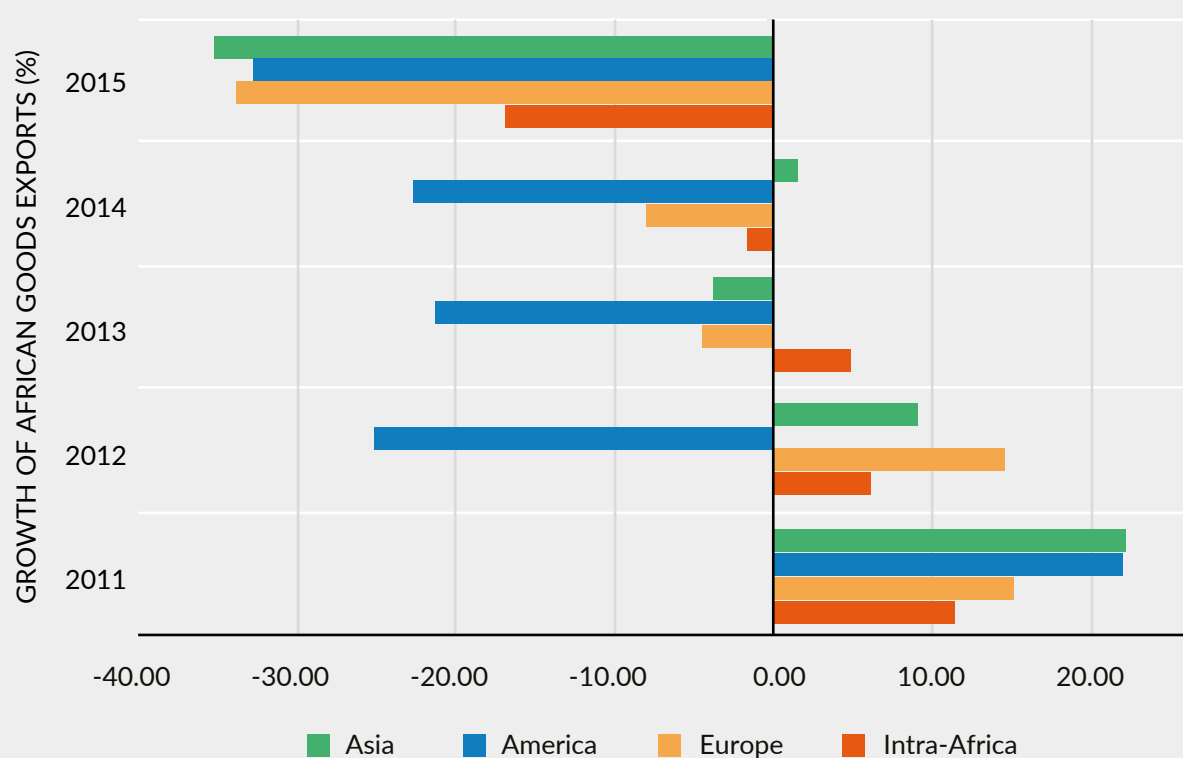
especially base metals.² They grew by a further 17.1 per cent in 2011, and by 4.5 per cent in 2012. Growth then went into a sharp reversal, and exports declined by 29.6 per cent in 2015, the sharpest drop among all global regions (figure 1.11).

This reversal was grounded in the 57 per cent collapse in oil prices between mid-2014 and early-2015, amid a general decline in commodity prices (World Bank, 2015a), both tied to China's slowdown and increased fuel production in the US³(reducing fuel imports from Africa). Demand for African goods plunged in all regions, though intra-African trade fell less steeply (figure 1.12).

Africa's share in global merchandise exports—already very low⁴—fell further, to 2.4 per cent in 2015. Europe remained the main destination for the continent's exports, but its role in African trade has declined as Asia has become a bigger trading partner, lifting its share in Africa's exports and imports by

FIGURE 1.11 Growth rates of goods exports (%), main global regions, 2010–2015

Source: Based on UNCTAD (2016b).

FIGURE 1.12 Growth of African goods exports (%), by main global region of destination, 2011–2015

Source: UNECA calculations based on UNCTAD (2016b).

about 4 and 5.5 percentage points, respectively, in 2010–2015. In the same period the proportion of Africa's exports going to America fell by half from 21.5 per cent in 2010 to about 11 per cent in 2015.

AFRICA'S EXPORTS ARE STILL DOMINATED BY PRIMARY COMMODITIES

Africa's exports to the world are poorly diversified and dominated by primary commodities, mainly hydrocarbons: 55 per cent of exports were fuels over 2010–2015, with manufactured goods accounting for only 18 per cent (figure 1.13). Manufactured goods dominate Africa's imports (mainly heavy machinery, automobiles and chemicals); they are also the largest share of intra-African trade, averaging 43 per cent in the period, though intra-African trade share is only 16 per cent.⁵

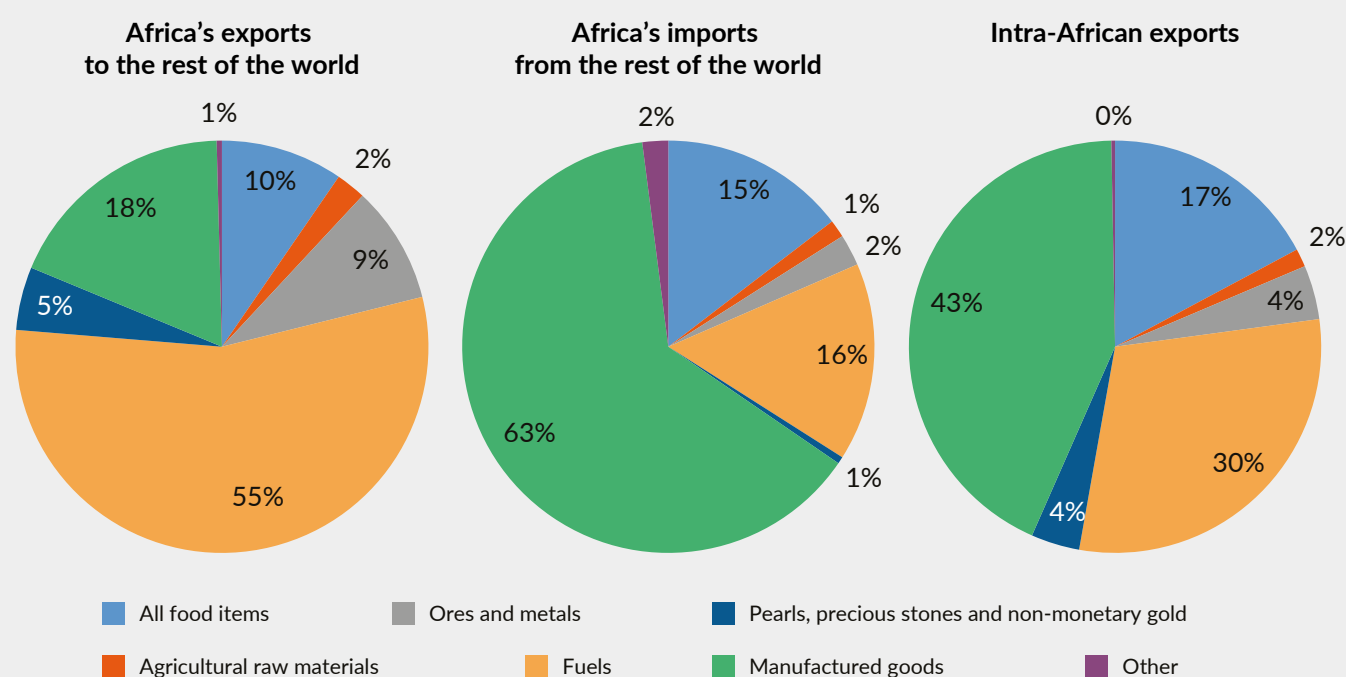
Despite efforts to industrialize, Africa's share in world manufacturing exports is still less than 1 per cent, as its exports to the world are poorly diversified and dominated by primary commodities.

MANUFACTURING OUTPUT HAS INCREASED ABSOLUTELY, BUT NOT AS A SHARE OF CONTINENTAL GDP

African manufacturing's share in Africa's GDP has also slipped since 2010, despite absolute increases in output. And despite efforts to industrialize, the sector's share in world manufacturing exports is still less than 1 per cent—a share that has even declined since 2010.

This calls for efforts to diversify the region's export base with increased value added to benefit more from Africa's closer engagement with emerging markets in Asia, and to expand intra-regional trade.

FIGURE 1.13 Composition of Africa's trade by main sector, 2010–2015 average



Source: UNECA calculations based on UNCTAD (2016b).

These shifts will require imports to have a bigger share of capital-intensive intermediate goods and the embedded technology in these goods to be fully exploited.⁶ And, while taking full advantage of its abundant natural resource base, Africa should strengthen its value chains, particularly in manufacturing.

TRAVEL DOMINATES AFRICA'S SERVICE EXPORTS

Africa's share in global trade in services, standing at just 2.2 per cent over the period 2010–2015, is even lower than its share in global merchandise trade of 3.1 per cent. At 42 per cent in 2010–2015, travel dominated Africa's exports of services. In the other direction 47 per cent of its service imports were "other services," such as insurance, pensions, financial services and charges on the use of intellectual property (figure 1.14).

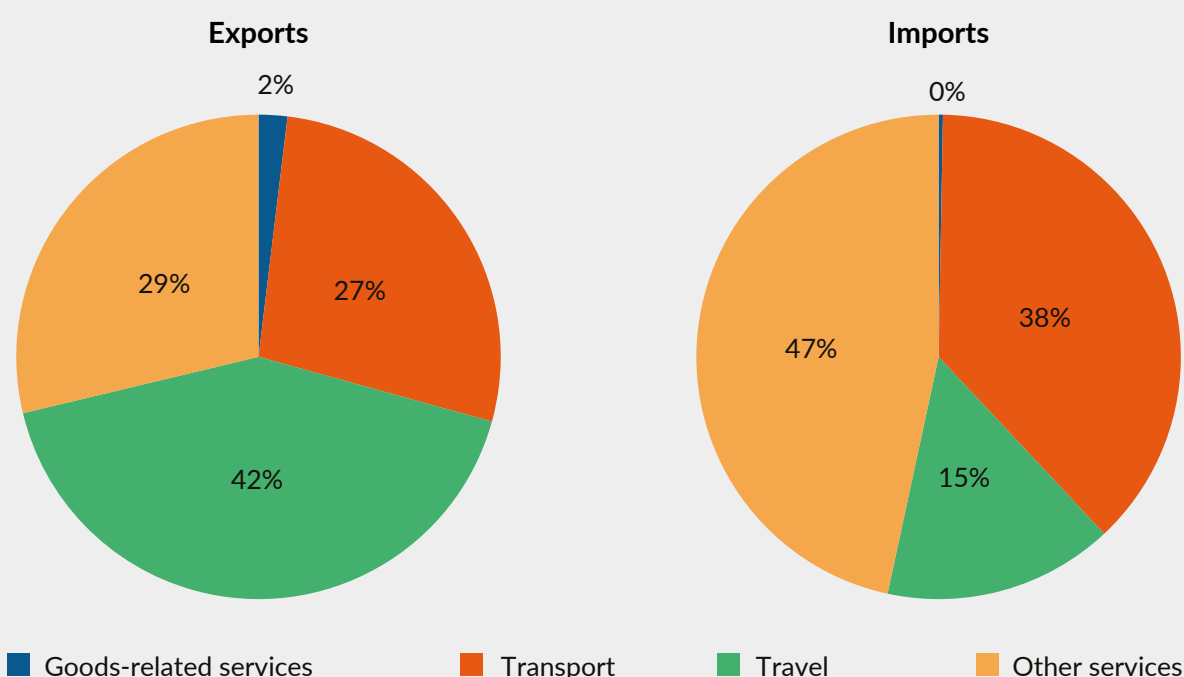
REGIONAL INTEGRATION MAKES SOME PROGRESS

The Abuja Treaty—signed in Abuja, Nigeria in 1991, and which entered into force in 1994—provides a

Africa's share in global trade in services remain low, standing at an average of just 2.2 per cent over the period 2010–2015, lower than its share in global merchandise trade.

clear roadmap for successive regional integration steps in Africa. The third stage of Africa's integration, as per the Treaty, specifies that all regional economic communities (RECs) are expected to have established a free trade area (FTA) and a customs union by the end of 2017. Currently only the Economic Community of West African States (ECOWAS) and East African Community (EAC) have an FTA and a customs union, while the Common Market for Eastern and Southern Africa (COMESA), Southern African Development Community (SADC), ECOWAS and Economic Community of Central African States (ECCAS) have only an FTA. For COMESA a customs union was launched in June 2009 but fell far short of full implementation, as with the ECCAS FTA (UNECA–AUC–AfDB, 2016). Member states of the COMESA, SADC, EAC and ECOWAS FTAs have all committed to eliminating all tariffs on intra-regional imports.

FIGURE 1.14 Composition of Africa's services trade, 2010–2015 average



Source: ECA calculations based on UNCTAD (2016b).

BOX 1.3 THE CONTINENTAL FREE TRADE AREA

Negotiations for the Continental Free Trade Area (CFTA) were launched on 15 June 2015. At the same time the African Union (AU) Assembly adopted a set of Objectives and Guiding Principles for negotiating it. It also adopted the indicative roadmap for the CFTA negotiations, including the indicative finalization by the end of 2017 as reaffirmed at the January 2017 AU Summit. The objectives and timelines of the CFTA project are ambitious, particularly as 54 member states are participating.

The CFTA aims to create a single African market of over a billion people and a GDP of over \$3 trillion. This market promises to enable economies of scale and attract investment into African cities. It also augurs well for boosting incentives to source inputs and intermediates from within the continent, supporting the expansion of manufacturing and enhancing the competitiveness and productivity of Africa's industrial goods producers. Collaboration among RECs through the CFTA should help to accelerate progress in regional projects aimed at unlocking the binding constraints to trade and industrial development, such as cross-border infrastructure, helping to connect Africa's urban centres and to lower the costs of intra-African trade.

ECA modelling exercises indicate that a CFTA established in 2017 has the potential to lift intra-African trade by 52.3 per cent from 2010 to 2022, relative to a baseline without it. Trade in industrial products is expected to receive the largest boost, with an additional increase of 53.3 per cent over the period. The estimates also find that supportive trade facilitation measures could more than double intra-African trade, stimulating industrial products the most (UNECA, 2012).

The CFTA is more than a trade liberalization project, but also a tool for structurally transforming African economies and urban cities, boosting value addition and driving industrial competitiveness (and see the three thematic chapters, 3, 4 and 5 in this report). Although urbanization is crucial for facilitating agglomeration economies, enhanced cooperation at the continental level is also needed to provide the economies of scale needed to make Africa's industrial products globally competitive.

Urbanization is part of a chain of events for Africa to compete on world markets. Urban centres and agglomeration economies encourage productive local value chains, which are important for boosting national competitiveness. Competitive national industries are in turn important for developing efficient regional value chains, needed for Africa's integration into global value chains. The economies of scale provided by urban agglomerations should not be seen as an end in themselves, however, but as a means to achieve further integration, economies of scale and competitiveness gains, all of which are needed for large-scale industrialization. The CFTA will help to maximize the gains from urban agglomerations and to stimulate further integration among African cities.

Still, progress has been made on laying the groundwork for negotiating a Continental Free Trade Area (CFTA) (box 1.3).⁷ The CFTA negotiating forum adopted its rules of procedures⁸ in February 2016, and in May 2016 the definitions of the negotiations' guiding principles and the technical working groups' terms of reference.⁹ The African Union Commission

(AUC), with UNECA and UNCTAD, prepared a draft CFTA framework agreement on trade in goods and services.

The CFTA is being negotiated against a backdrop of negotiations for mega-regional trade agreements (MRTAs) such as the Trans-Pacific Partnership (TPP), the Transatlantic Trade and Investment Partnership (TTIP) and the Regional Comprehensive Economic Partnership (RCEP). Although there is much uncertainties surrounding the possible realization of both the TPP and TTIP following the recent US decision to withdraw from the TPP and growing unpopularity of TTIP, MRTAs and particularly the RCEP may have adverse effects on intra-African trade unless the CFTA is established soon (Mevel, 2016). This provides greater impetus for a rapid and effective realization of the CFTA.

CFTA is not only a trade liberalization project, but is also a tool for structurally transforming African economies and urban cities, boosting value addition and driving industrial competitiveness.

1.3 AFRICA'S PERFORMANCE IN DEVELOPMENT FINANCING

The financing needs for Africa's transformation agenda are substantial, at roughly \$94 billion in infrastructure investments annually over 10 years to close the financing gap in infrastructure alone (World Economic Forum, 2015). But this goal is far from being met: only \$74 billion was invested in infrastructure in 2014—\$25 billion less than in 2013.¹⁰

But what about the funding for such investments? After improving in 2012, Africa's domestic tax revenue declined to \$465 billion in 2015 and is expected to have declined further in 2016 (table 1.2).

Average gross domestic savings increased to 16.1 per cent of GDP in 2016 from 15.0 per cent in 2015, with variations among economic groupings (figure 1.15). Of 50 African countries with data for 2016, countries varied even more, as expected, from Morocco's 34.8 per cent of GDP to Mozambique's negative 4.2 per cent. (Angola and Zimbabwe were the other two countries that reported negative savings.)

Average investments among African countries increased from 22 per cent of GDP in 1997–2006 to

25 per cent in 2007–2015, and are estimated to have averaged 26 per cent in 2016 (IMF, 2016c). In 2016 an average of 26.8 per cent of GDP went to mineral-rich countries as investments, while the mineral-poor countries received the equivalent of 24.3 per cent. In the same year North Africa received 26.6

The financing needs for Africa's transformation agenda are substantial, as \$94 billion is needed annually over a period of 10 years to close the financing gap in infrastructure investments alone.

per cent, while the rest of Africa received 25.0 per cent of GDP in total investments, averaging 22.2 per cent of its GDP in investments over 2011–2015. As seen in table 1.2, however, investments sharply declined from 2014 to 2016.

Africa's official reserve assets stood at \$262 billion in 2014, equivalent to only about \$250 per capita

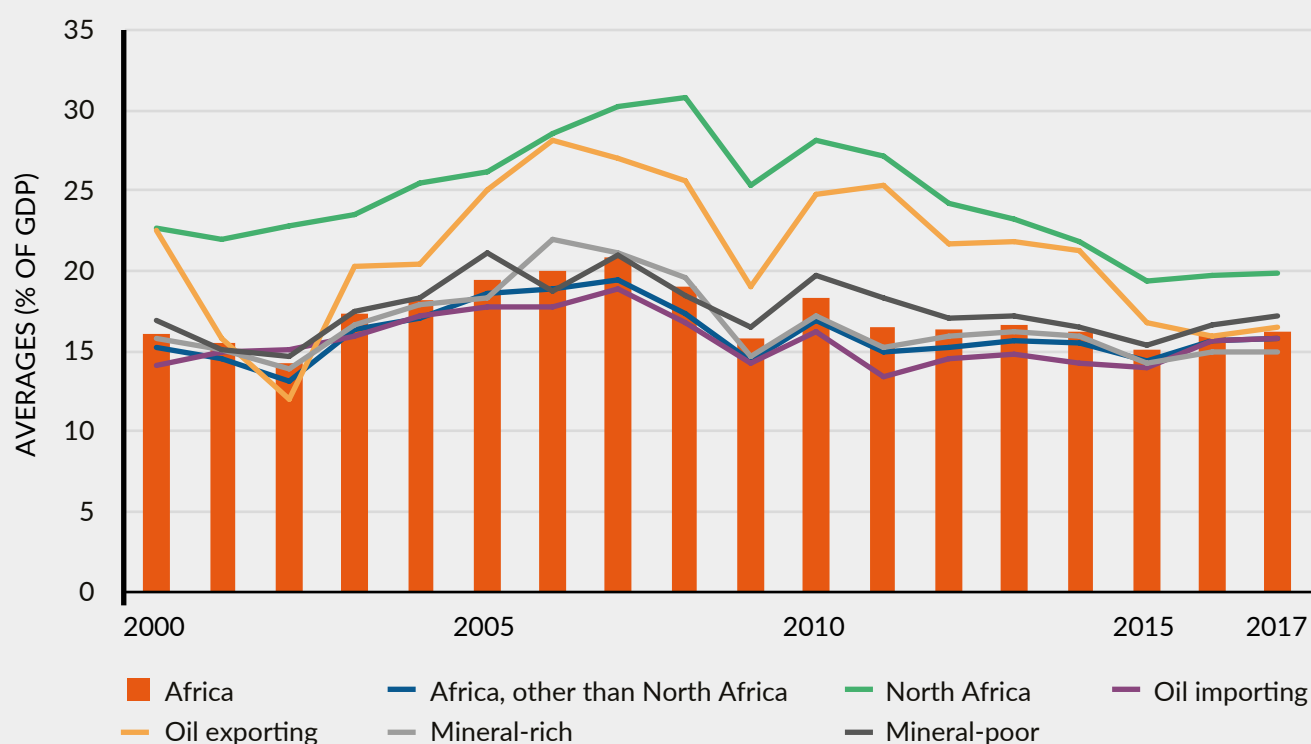
TABLE 1.2 Selected financial indicators for Africa, (current \$ billions), 2011–2016

	2011	2012	2013	2014	2015E	2016P
Tax revenue	494	514	497	499	465	444
Investments	475	516	540	566	498	497
Portfolio investments	21	32	23	23	13	15
Official reserve assets	243	262	266	262	na	na
FDI	48	56	54	58	54	66
Remittances	57	62	61	64	65	66
Official development assistance	52	51	57	54	56	59

Source: IMF (2016d), AfDB (2016), UNCTAD (2016c), IMF (2016e) and World Bank (2016b).

Note: na=not available data.

FIGURE 1.15 Gross domestic savings, averages (% of GDP), 2000–2017



Source: IMF (2016c).

against a global average of more than \$1,000. Roughly 80 per cent of Africa's assets are held by North Africa.

TOTAL AND NET DEBT INCREASED ON THE BACK OF LOW GOVERNMENT EXPORT REVENUE

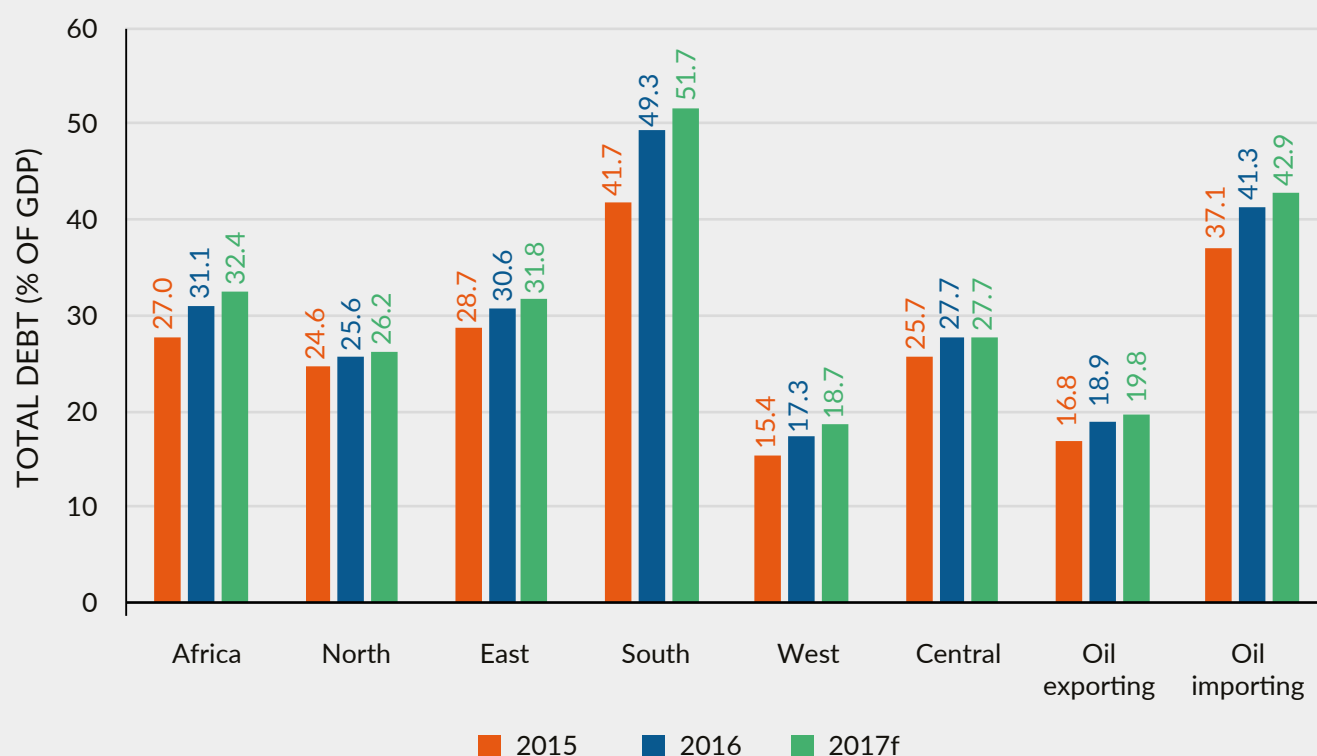
Total debt in Africa increased from 27.8 per cent of GDP in 2015 to 31.1 per cent in 2016, and is forecast to rise to 32.4 per cent in 2017 (figure 1.16). Debt increased faster in oil-importing than oil-exporting countries as the former had to run down reserves.

Total debt in Africa increased from 27.8 per cent of GDP in 2015 to 31.1 per cent in 2016, and is forecast to rise to 32.4 per cent in 2017, raising concerns for long-term debt sustainability.

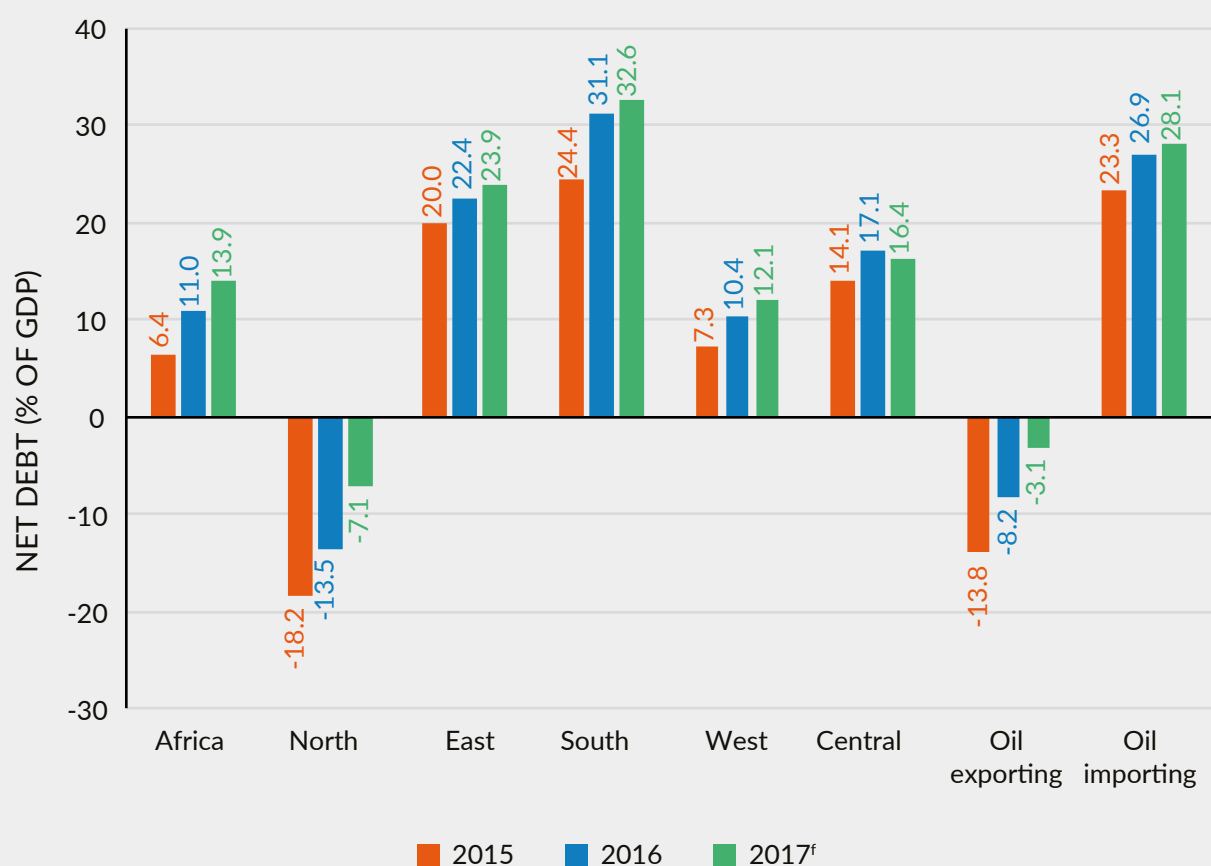
Net African debt surged from 6.4 per cent of GDP in 2015 to 11 per cent in 2016 (figure 1.17), partly due to a fall in international reserves from 33.2 per cent to 28.7 per cent, driven by North Africa and oil-exporting countries.

External debt is relatively low in most African countries owing to external debt relief (to some 30 African countries under the Heavily Indebted Poor Countries and Multilateral Debt Relief Initiative), the robust economic growth seen over the last decade or so and low global interest rates. Yet Africa's total debt increased to 42.8 per cent of GDP in 2010–2015 from 24 per cent in 2000–2005, which is a concern for long-term debt sustainability in several African economies at least, especially as global borrowing conditions start to tighten (IMF, 2015).

The weighted share of concessional debt in total external debt in Africa fell from 42.4 per cent in 2006–2009 to 36.8 per cent in 2011–2013.¹¹ However, a shift of most of Africa's debt from concessional to non-concessional sources, including bilateral and commercial creditors as well as international bond markets, is a concern for low-income countries. Still, many African countries

FIGURE 1.16 Total African debt, (% of GDP), 2015–2017

Source: Based on EIU (2016).
 Note: e=estimates; f=forecasts.

FIGURE 1.17 Net debt in Africa, (% of GDP), 2015–2017

Note: f=forecasts.
 Source: Based on EIU (2016).

are seeking to finance public investment and are increasingly relying on non-concessional borrowing (Prizzon and Mustapha, 2014). Most of them have entered the international capital markets, selling Eurobonds usually denominated in dollars or euros. Before 2006 only South Africa had issued a foreign currency-denominated sovereign bond in Africa, but in 2006–2014 at least 14 countries issued about \$15 billion in international sovereign bonds.¹²

Though the international bond market is an opportunity for new sources of external finance for African economies, often without the imposition of conditions, it is not without issues. Servicing such bonds can be problematic for prudent debt management, including interest rate and foreign exchange risks. With a rise in international interest rates, countries that have borrowed on international markets could see exchange rate changes raise their debt repayments in local currency terms. So although interest rates on domestic debt are much higher at, on average, 19–23 per cent (UNCTAD, 2016d), exchange rate devaluation or depreciation narrows the nominal difference between the two rates (te Velde, 2014). Similarly, unlike bank loans, international sovereign bonds may be more difficult

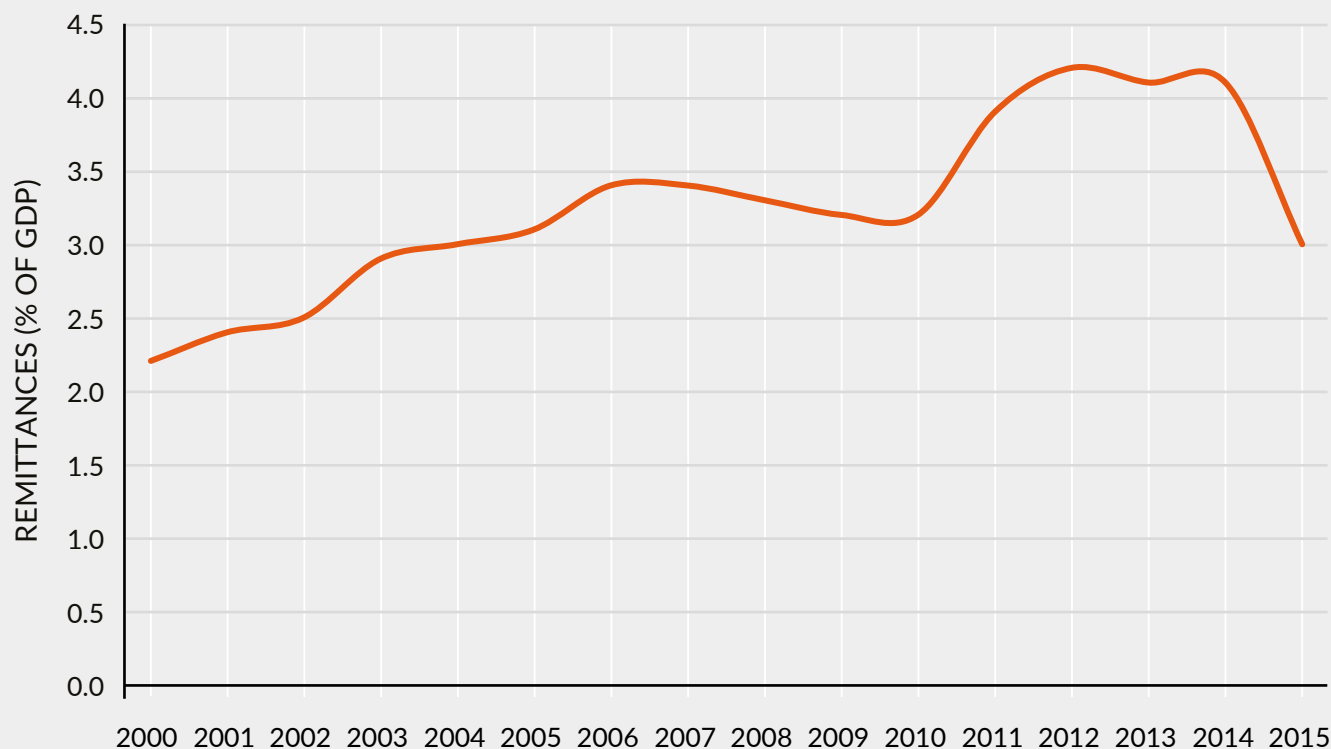
Net FDI to Africa remained stable at about 2 per cent of GDP in 2015 and 2016, but remittances fell from 4.4 per cent of GDP in 2014 to 3 per cent in 2015.

to restructure, because they may involve several creditors that must work together in the event of default.

NET FDI CHANGED LITTLE, BUT PORTFOLIO INVESTMENTS AND REMITTANCES FELL

Net FDI to Africa remained stable at about 2 per cent of GDP in 2015 and 2016. Its main destinations in 2016 were Central Africa (especially Gabon, Cameroon and Republic of Congo), Southern Africa

FIGURE 1.18 Remittances in Africa, averages, (% of GDP), 2000–2015



Source: World Bank (2016b).

Note: Lesotho is excluded as it is an extreme outlier (39.7%). Five countries have no data: CAR, Chad, Equatorial Guinea, Mauritania and Somalia.

(mainly Mauritius, Mozambique and Namibia) and East Africa (notably Djibouti, Seychelles and Uganda). Among the subregions FDI inflows were largest in Central Africa (3.7 per cent), Southern Africa (2.8 per cent), East Africa (2.3 per cent), North Africa (1.8 per cent) and West Africa (1.3 per cent).

Net portfolio investments fell to \$13 billion in 2015 from \$23 billion the year before. South Africa, however, one of the largest recipients of portfolio investments, saw a 70 per cent increase in 2015 from 2014. Nigeria has no data for 2015, but the Nigerian Stock Exchange (2016) reports that 2015

had a one-third reduction in portfolio investments from 2014.

Remittances also fell, from 4.4 per cent of GDP in 2014 to 3 per cent in 2015 (figure 1.18). Four countries excluding the extreme outlier Lesotho (Cabo Verde, Comoros, Gambia and Liberia) received more than 10 per cent of GDP in remittances over 2000–2015; 15 countries received less than 1 per cent over the period. Official development assistance to Africa has shown an increasing trend in recent years, to a projected \$59 billion in 2016 (see table 1.2).

1.4 MEDIUM-TERM OUTLOOK AND RISKS

STRONG DOMESTIC DEMAND IS EXPECTED TO SUPPORT MEDIUM-TERM PROSPECTS

Africa's real GDP growth is expected to increase to 3.2 per cent in 2017 and 3.8 per cent in 2018 (figure 1.19), led by strong domestic demand, particularly in infrastructure. The buoyant service sector, oil-price recovery and oil-exporting economies' focus on non-oil sectors could also contribute to better prospects. Increasing trade and investment ties in Africa and between Africa and emerging economies, alongside the recovery of traditional export markets, particularly the euro area, are also expected to strengthen Africa's outlook.

All the subregions are forecast to see real GDP growth in 2017 and 2018. West Africa's is projected to increase to about 3.1 per cent in 2017 and 4.1 per cent in 2018, boosted mainly by an improving economic performance in Nigeria, with its emphasis on diversifying investments into non-oil sectors through an expansionary fiscal policy. The floating exchange rate regime being implemented may encourage investment inflows in the medium term, and recovery in the oil price and increased oil production will raise public revenues. Ghana has a better growth outlook on improving macroeconomic conditions, increased energy supplies and lower inflation, and Côte d'Ivoire on increased public investment.

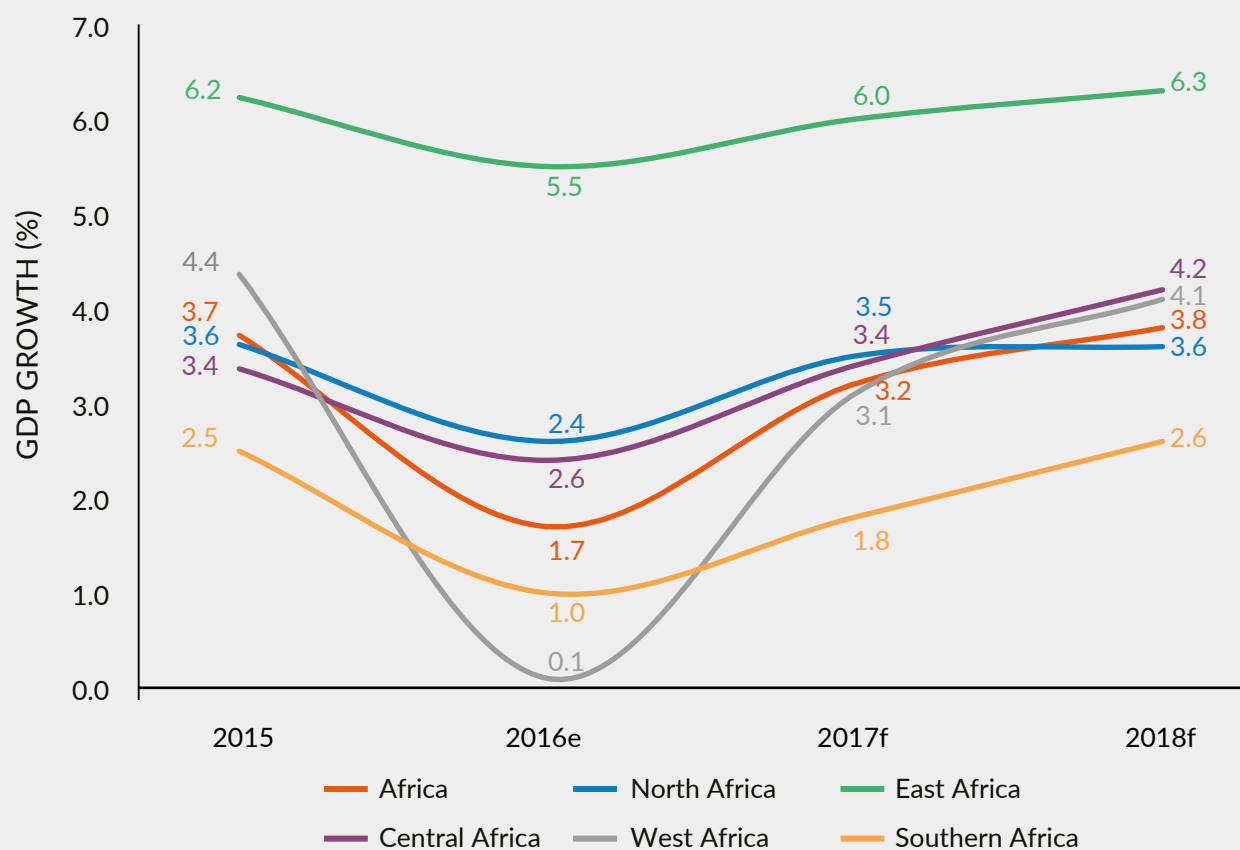
In Southern Africa growth is forecast to rise to 1.8 per cent in 2017 and 2.6 per cent in 2018, mainly because of the expected investment increase in non-oil sectors such as electricity, construction and technology; in large infrastructure projects; and in mining. On the downside are high unemployment in South Africa and the lower oil price (with high inflation) in Angola.

East Africa's growth is set to continue leading the subregions, at 6.0 per cent in 2017 and 6.3 per cent in 2018, backed by robust performance in Kenya, Rwanda and Tanzania as they benefit from low oil prices and expanding public investment. Central Africa is expected to see growth rise to 3.4 per cent and 4.2 per cent, driven by investment in energy and infrastructure, and by a strong service sector.

In North Africa growth is forecast to pick up to 3.5 per cent in 2017 and 3.6 per cent in 2018. Improved political and economic stability—and subsequent

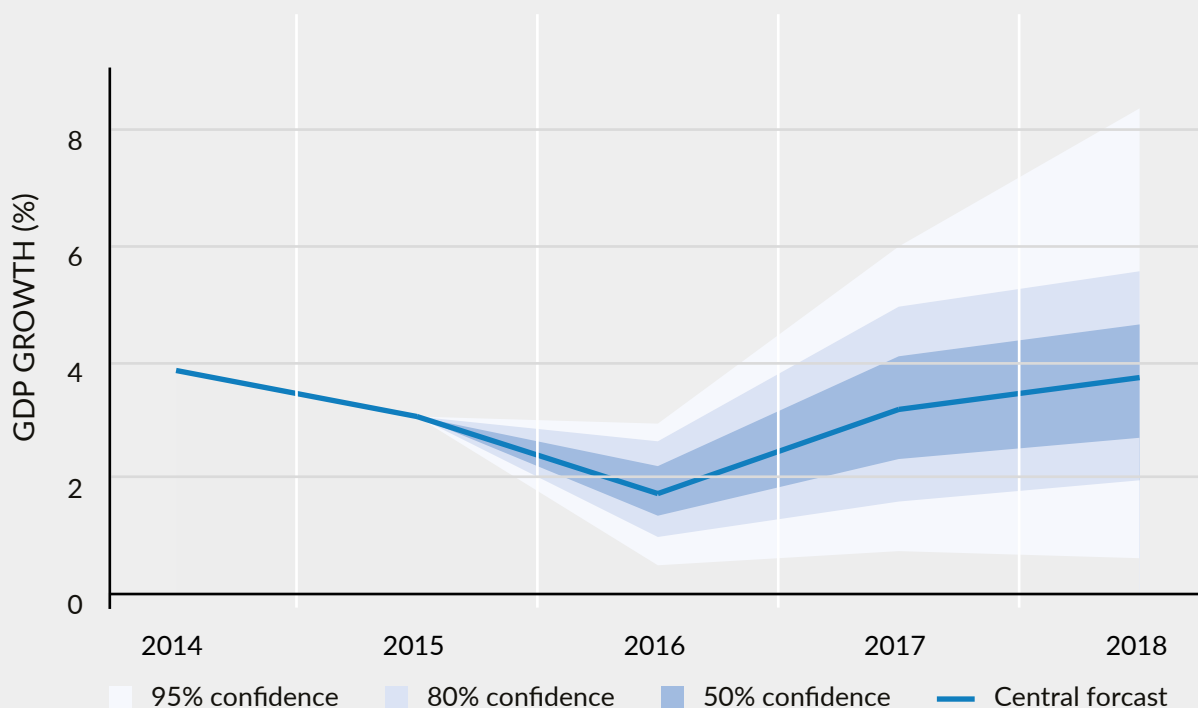
Africa's growth could hit 6 per cent in 2017 and 8 per cent in 2018 if global demand shows a descent recovery, major African countries policy reforms run well and the recovery continues in oil and other commodity prices.

FIGURE 1.19 Africa's growth prospects by subregion, (%), 2015–2018



Source: Based on UNDESA (2016a).
Note: e=estimates; f=forecasts.

FIGURE 1.20 Africa's GDP growth prospects for Africa (%) with confidence intervals, 2014–2018



Source: UNDESA (2016a).

increases in business confidence (especially in Egypt and Tunisia), in inflows of external aid and in large infrastructure projects—will buttress growth. Continuing political challenges in Libya will continue to affect the subregion's political and economic governance, however.

Depending on the confidence interval (figure 1.20), Africa's growth could hit 6 per cent in 2017 and 8 per cent in 2018, if global demand shows a decent recovery, major African economies' policy reforms run well and the recovery continues in oil and other commodity prices. Yet growth could decelerate further to around 1 per cent in both 2017 and 2018, if the global economy does not recover, oil and commodity prices (and domestic production) decline again, 2015's climate shocks are repeated, and instability continues in some parts of the continent.

AFRICA'S LONG-TERM GROWTH OUTLOOK REMAINS PROMISING

The region's long-term fundamentals remain strong as the pace of growth could be boosted by demographic factors, especially given the ageing global population. Africa has a young population and a growing labour force, with its working-age population reaching 1.1 billion—bigger than China or India's—in the next 20 years. Coupled with the fast penetration of Internet and mobile phones, this will create huge opportunities for Africa, especially in lifting the contribution of modern services to growth.

Africa's resource endowments, if they are properly managed and used, notably via value added rather than export in raw form, would boost job creation

and export earnings. Africa is still home to nearly 60 per cent of the world's unused but potentially available cropland, and has huge reserves of minerals such as vanadium, diamonds, manganese, phosphate, platinum-group metals, cobalt, aluminium, chromium and gold.

The continent is the world's fastest urbanizing region. Each year in the next 30, about 24 million people will move to live in its cities, compared with 11 million in India and 9 million in China. Increasing urbanization leads to better earnings and an expanding middle class that spur consumption growth. However, African countries should manage the process to harness its potential while minimizing associated challenges. This entails linking urbanization and industrialization in national development planning processes, while harmonizing economic and spatial planning priorities with national targets for growth and transformation (taken further in the three thematic chapters, 3, 4 and 5 of this report).

RISKS AND UNCERTAINTIES

The global economy's weak recovery affects Africa's performance through trade, investment and remittances, and so China's deceleration (box 1.4) and the euro area's subdued (though improving) performance remain concerns. Despite the recent increase, relatively low oil prices will continue hurting hydrocarbon-exporting countries, though the net effect may be positive for Africa as a whole. The depreciation of major African currencies, while possibly beneficial for exports, is likely to put pressure on monetary stability.

Brexit effects may slow African growth, mainly through trade and financial channels. Trade ties between the United Kingdom and Africa may weaken, because some of the current EU–Africa trade deals will need to be renegotiated in a lengthy process. Development assistance from the United Kingdom may also decline.

FDI flows are expected to remain steady at about 2 per cent of GDP, although the Federal Reserve's monetary policy presents a risk for the medium term. Low interest rates have increased speculative investors' appetite for emerging markets, and US policy rate rises may divert some flows back to mature markets.

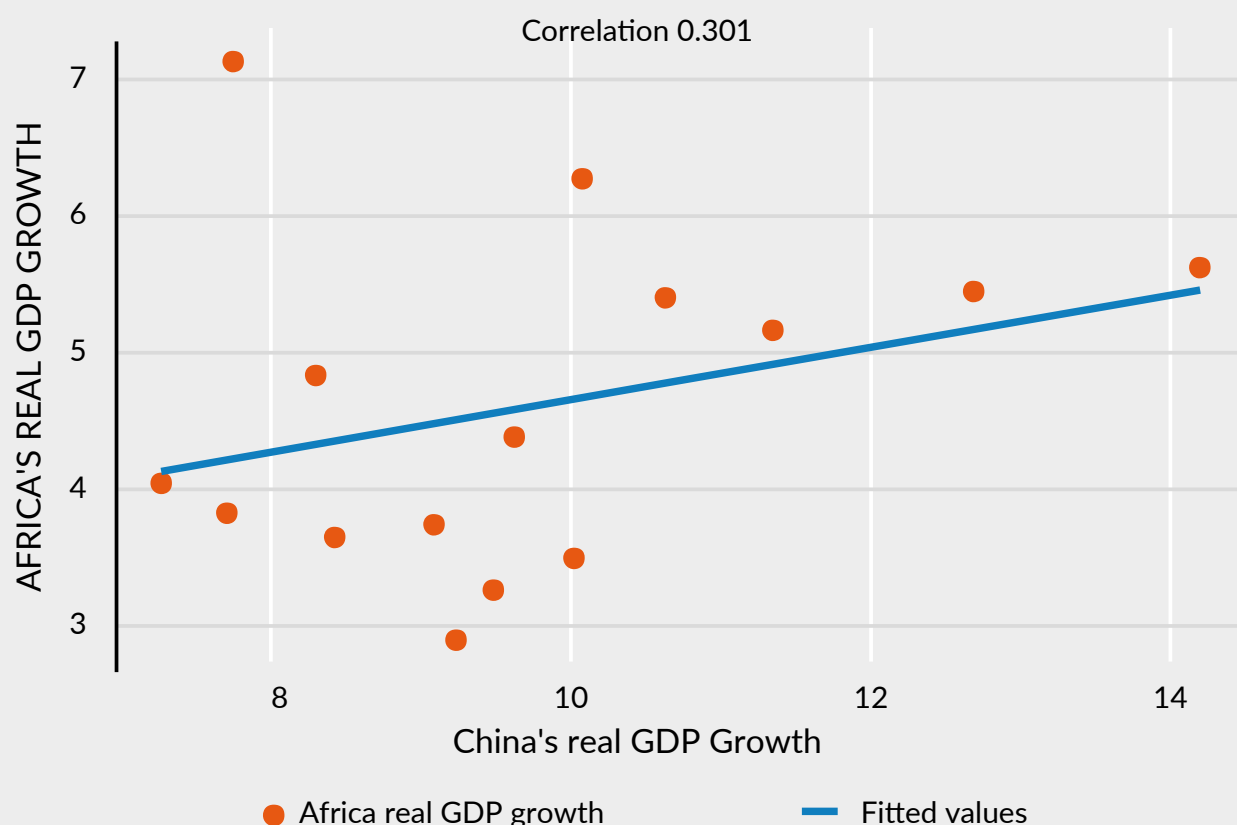
Despite the recent growth decline, Africa's long-term fundamentals remain strong as the pace of growth could be boosted by demographic factors, especially given the ageing global population.

BOX 1.4 CHINA'S ENGAGEMENT IN AFRICA: ANY IMPACT ON AFRICA'S GROWTH?

Africa's growth has shown a positive correlation coefficient of 0.3 with China's growth since 2000 (box figure 1.2). The decline in growth in China and

weak growth in many emerging economies have contributed to the slowdown in global growth, with effects on Africa.

BOX FIGURE 1.2 Correlation between real GDP growth in Africa and China, 2000–2014



Source: Based on data from World Bank (2016b).

The Chinese slowdown has affected African economies mainly through the trade and finance channels (the latter includes aid, grants, loans and investment). China's imports from Africa soared from \$5.5 billion in 2000 to about \$67 billion in 2010, and to \$116 billion in 2013, before falling sharply to \$68 billion in 2015. Similarly, Chinese loans to African countries surged from \$0.13 billion in 2000 to \$17 billion in 2013 before receding to \$13.6 billion in 2014. Investment from China in Africa jumped from almost zero in 2000 to \$3.1 billion in 2014.

Awel and Chavula (2016) estimated growth spillover effects from China to Africa for 1992–2014 and find a direct correlation between Chinese and African growth. They also highlighted that the strongest growth channels are Chinese imports from Africa and Chinese investment in Africa.

Falling demand from China as it rebalances from an investment-led to a consumption-based economy is taking a toll on African growth. For this among many other reasons, African economies need to diversify their trade, build capacity and integrate their economies into global value chains for value-added products.

In Africa risks include weather-related shocks, such as the drought that affected parts of East and Southern Africa in 2016. Beyond agricultural production, any reoccurrence would hurt hydropower generation, threatening Africa's efforts to green its industrialization. Poor harvests would also feed into inflation through higher food prices.

Security in some African countries remains an issue, especially in Egypt, Ethiopia, Kenya, Libya and Tunisia, where such concerns have hurt tourism receipts. Boko Haram and Al-Shabaab in West and East Africa, and political unrest in some other African countries, especially those heading for or having just held elections, may disrupt domestic economic activities and reduce foreign investment.

1.5 POLICY IMPLICATIONS TO REVITALIZE AFRICA'S GROWTH

With growth at only 1.7 per cent—the lowest since the start of the century—Africa needs policies to lift growth through increased consumption, investment and trade. Its dependence on commodity exports is unsustainable, and the volatility in commodity prices calls for counter-cyclical fiscal policies to foster its structural transformation. It also calls for steps to improve the enabling environment (regulatory and operational) for businesses and to attract foreign investment. The decline in global demand and commodity prices also suggests Africa's need to diversify economically and add value through commodity-based industrialization, raising productivity in agricultural and non-agricultural sectors.

Furthermore, much of the labour supplied to the industrial and service sectors involves the processing and trading of agricultural and other primary goods for consumers whose incomes are dominated by agricultural activities. These strong links highlight additional benefits to achieving and sustaining agricultural productivity growth as the countries' structurally transform, increasing the

supply of raw materials for manufacturing, and increasing the demand for non-tradeable goods. Raising overall productivity, which enhances the countries' competitiveness, people's living standards and overall economic growth, is vital for structural transformation and long-term growth.

Unreliable power supply and poor transport networks, as well as low investment in research and development, have had a heavy negative impact on productivity, competitiveness and long-term growth in many African countries. Building infrastructure, especially electricity supply and transport networks is necessary as it plays a very important role in facilitating and enhancing the productivity of factor inputs such as labour and capital, especially in African manufacturing firms. And there is need to strengthen support for industrialization and regional integration.

Beyond that, the weakening of domestic currencies, rising interest rate spreads on sovereign debt and volatility in capital inflows pose a challenge for tapping finance on the international capital markets. To finance the infrastructure deficit, African countries need to come up with innovative ways of financing. High debt, the global economic slowdown and the decline in government revenues all call for promoting ways to mobilize more domestic resources to finance long-term development plans.

Many of these policy implications are picked up in more detail in chapters 3, 4 and 5. But first, paralleling this chapter's recent economic developments, chapter 2 turns to recent social developments in Africa.

The decline in global demand and commodity prices suggests Africa's need to diversify economically and add value through commodity-based industrialization, raising productivity in agricultural and non-agricultural sectors.

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ENDNOTES

- 1 See World Bank (2015) and UNCTAD (2016b).
- 2 See IMF (2015).
- 3 See United Nations (2015) and Brown (2014).
- 4 These were the shares of intra-regional trade in each region's total merchandise exports in 2015: Asia (64%); the European Union (62%); North America (42%), South and Central America (17%); Africa (16%)(UNCTAD 2015).
- 5 Authors' computation based on UNCTAD (2016b).
- 6 See Chu (2001).
- 7 AUC (2016).
- 8 See <http://www.au.int/en/pressreleases/21051/1st-meeting-continental-free-trade-area-negotiating-forum-cfta-nf-kicks-addis> (consulted on the 28 July 2016).
- 9 See the website <http://www.au.int/en/pressreleases/30335/2nd-meeting-continental-free-trade-area-negotiating-forum-cfta-nf-kicks-addis> (consulted 28 July 2016).
- 10 The Infrastructure Consortium for Africa (2015).
- 11 UNCTAD (2016d).
- 12 These include Angola, Côte d'Ivoire, Egypt, Ethiopia, Gabon, Ghana, Kenya, Namibia, Nigeria, Rwanda, Senegal, Seychelles, Tanzania and Zambia.

2. RECENT SOCIAL DEVELOPMENTS IN AFRICA

The chapter reviews recent social development trends in Africa by addressing three questions.

WHY IS THE NUMBER OF PEOPLE IN EXTREME POVERTY NOT DECLINING FAST ENOUGH IN AFRICA?

The economic growth seen in many African countries in the last couple of decades or so, and especially since the early 2000s, has had less of an impact on poverty than expected. The continent's poverty headcount ratio declined from 54.3 per cent in 1990 to 41 per cent in 2013, though the second half of this period was more encouraging than in the first, partly owing to faster economic growth. Yet in absolute terms the number of people in poverty is stagnating at the 2002 level so that, from less than 15 per cent in 1990, more than 50 per cent of the world's poor in 2013 were in Africa. Section 2.1 explores why Africa's economic growth is contributing so little to reducing poverty.

ARE WOMEN BENEFITING FROM AFRICA'S GROWTH?

Africa had notable successes across welfare dimensions in 2000–2015 despite challenging

initial conditions. A higher proportion of children now attend primary school, the rates of child and maternal deaths have fallen and a greater share of people have access to improved sources of water and sanitation facilities. Yet progress varied among countries and among population groups within countries. Progress on gender equality has been particularly slow and inconsistent. Section 2.2 examines the gender bias in Africa's growth story.

IS WELFARE HIGHER IN URBAN THAN RURAL AREAS?

In almost every country in the world, average living standards in urban areas are superior to those in rural areas, regardless of national income levels. This gap also tends to be maintained during the development process, as countries transform from predominantly rural and agrarian economies to more urbanized economies with larger industrial and service sectors.

Section 2.3 adopts a spatial perspective and examines to what extent urbanization in Africa follows this trend.

The final section captures the key messages.

2.1 POVERTY REDUCTION IN AFRICA

Africa's progress in reducing poverty since 1990 is marked by two distinct phases. The poverty headcount ratio actually *increased* from 1990 to 2002, from 54.3 per cent to 55.6 per cent, but then declined by more than a quarter to 41 per cent in 2013. Still, poverty in Africa fell much more slowly in 1990–2013 than in other world regions (figure 2.1).

In 1996–2012 poverty declined in all subregions and faster in urban than rural areas, except in Southern Africa, which witnessed a marginally faster decline in rural poverty (figure 2.2).

The number of people in poverty in Africa other than North Africa increased by 42 per cent from 276 million in 1990 to 391 million in 2002. After 2002, however, economic growth had a positive, though slow, impact as the number of people in poverty remained almost constant at around 390 million. The shocking upshot of these figures is that, from

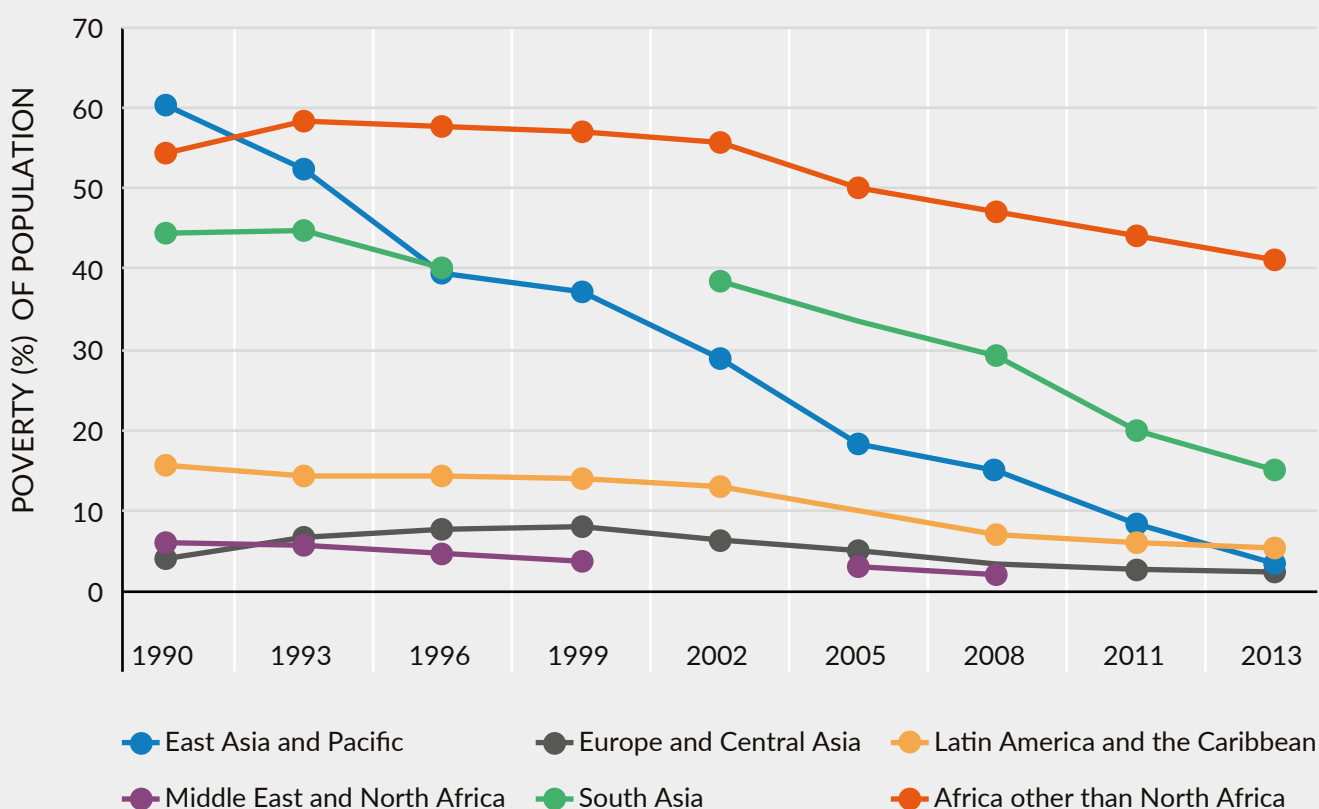
Poverty in Africa fell much more slowly in 1990–2013 than in other world regions.

less than 15 per cent in 1990, more than 50 per cent of the world's poor in 2013 were in Africa (World Bank, 2016c).

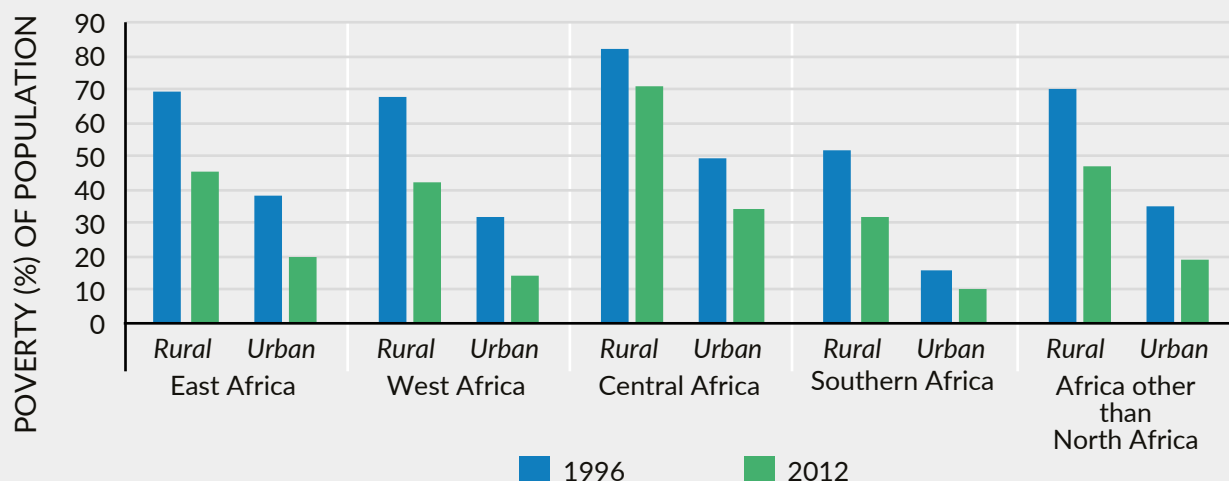
Why has economic growth had such a small impact on reducing poverty in Africa? The response can be broken down into four areas:

- Depth of poverty.
- High initial inequality.
- Mismatch between sectors of growth and of employment.
- Rapid population growth and delayed demographic transition.

FIGURE 2.1 Poverty trends at \$1.90 a day, 1990–2013 (2011 PPP)



Source: World Development Indicators (2014).
Note: PPP = purchasing power parity.

FIGURE 2.2 Poverty by subregion in Africa other than North Africa, 1996 and 2012

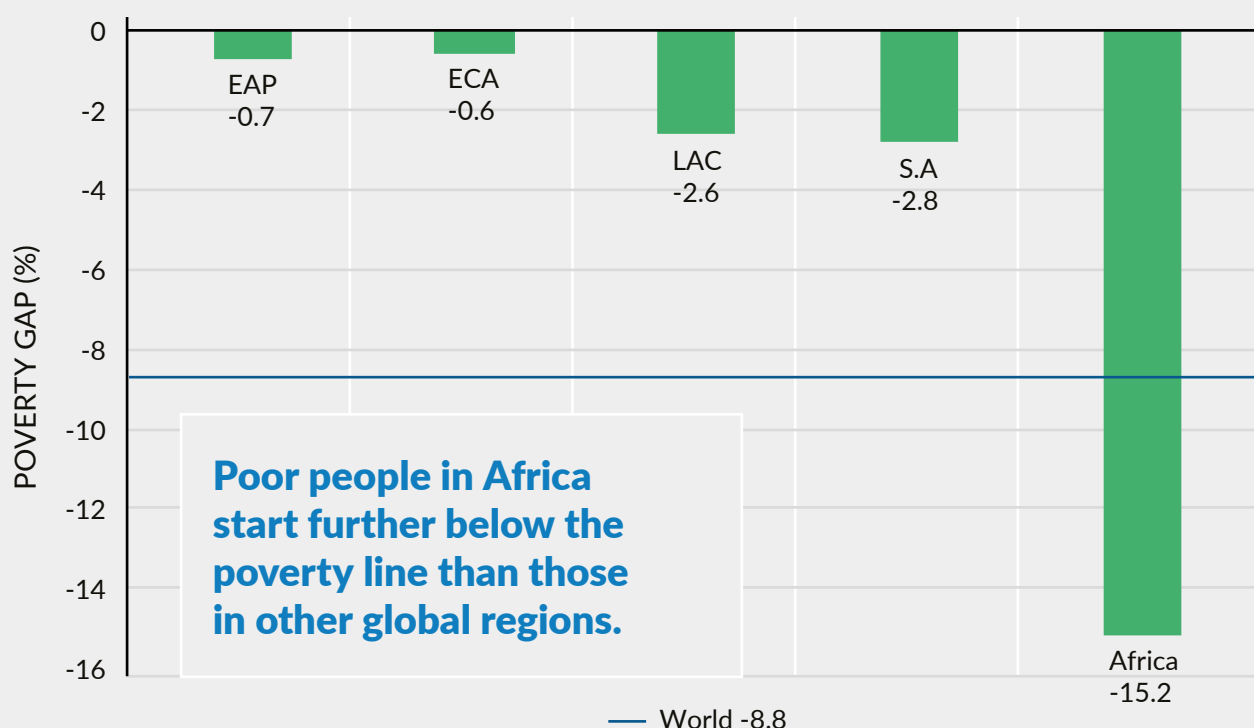
Source: Based on World Bank (2016b), Povcal Net Online Poverty Analysis Tool.

DEPTH OF POVERTY IN AFRICA

Poor people in Africa start further below the poverty line than those in other global regions. So even if their incomes are growing, that is rarely enough to push them over the poverty line threshold. The poverty gap provides a measure of how far below the poverty line the poor in a given country or region fall. This gap is expressed as a share of the

poverty line and represents the average distance to the poverty line among all the poor. Africa's poverty gap is nearly twice the global gap—15.2 per cent versus 8.8 per cent (figure 2.3).

Twenty of the 48 countries with data—45 per cent of the continent's population—have a poverty gap ratio higher than the African average (figure 2.4). Nine of them—Madagascar, Democratic Republic of Congo

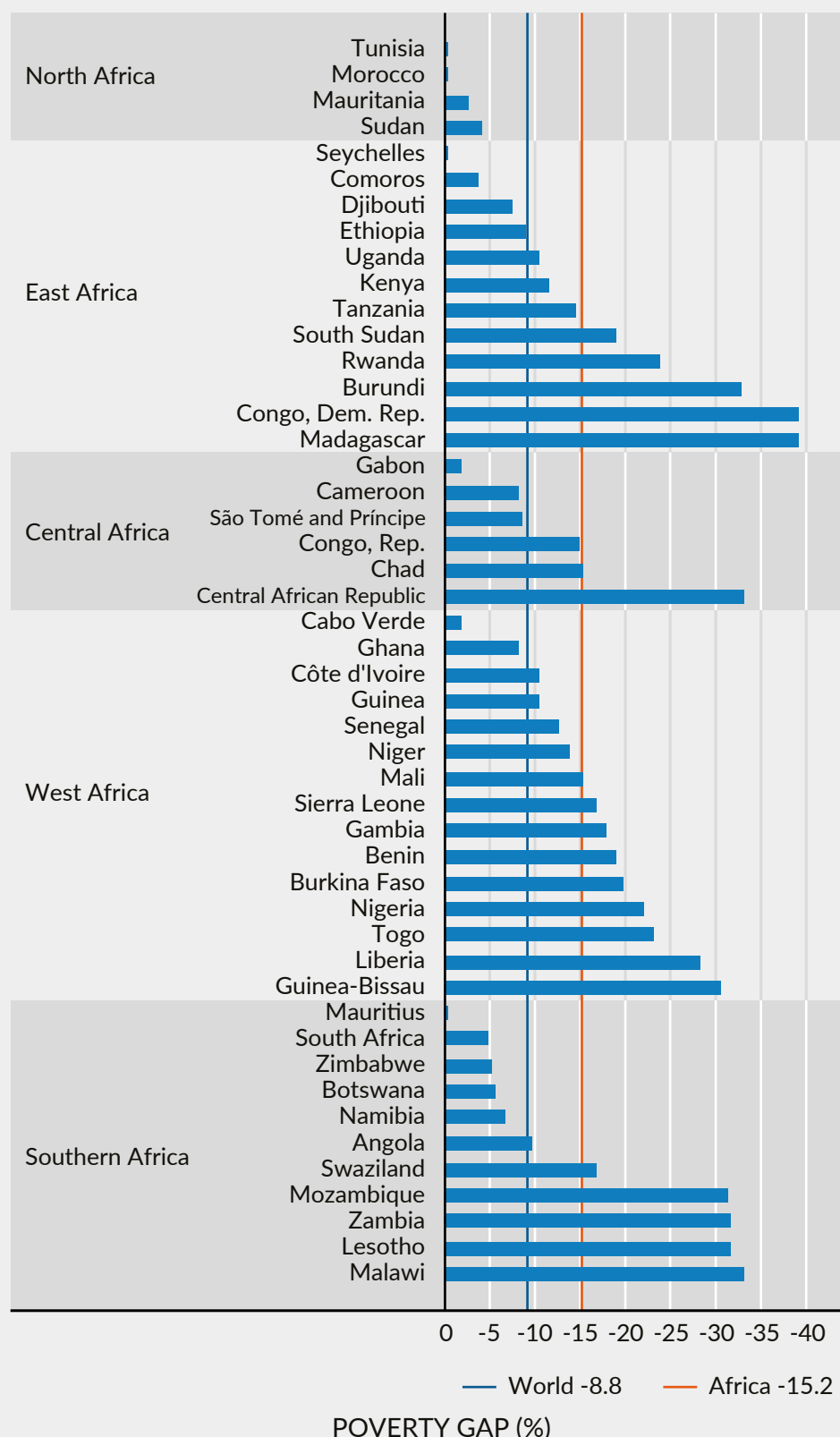
FIGURE 2.3 Poverty gap (depth of poverty) by region (%), 2013

Source: Based on 2013 data using PovcalNet, World Bank.

Note: EAP—East Asia and Pacific; ECA—Eastern Europe and Central Asia; LAC—Latin America and the Caribbean; SA—South Asia. Middle East and North Africa (MENA) is not shown as the depth of poverty is very low.

FIGURE 2.4 Poverty gap in Africa, 2013

Africa's poverty gap is nearly twice the global gap—15.2 per cent versus 8.8 per cent.



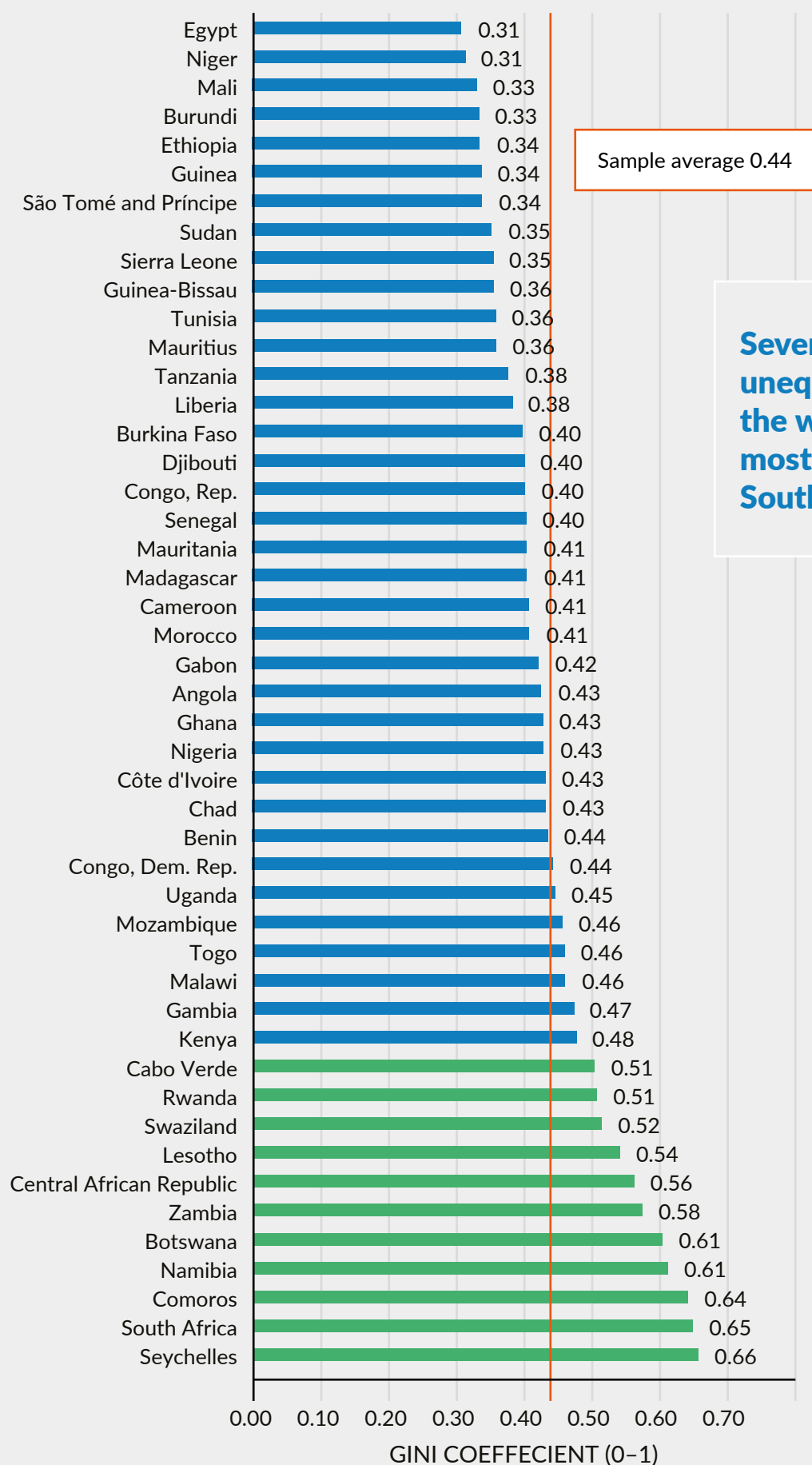
Source: World Bank (2016b).

Note: Data for 48 countries.

(DRC), Malawi, Central African Republic, Burundi, Lesotho, Zambia, Mozambique and Guinea-Bissau—have a depth of poverty that is more than twice the African average.

The average consumption of the poor in Africa other than North Africa is \$1.16 a day (2011 PPP),

which is \$0.74 below the international poverty line (Beegle et al., 2016) and indicates why poverty has declined only slowly and underlines the challenge of achieving the Sustainable Development Goal target of eliminating poverty on the continent by 2030.

FIGURE 2.5 Inequality in Africa: Gini coefficient, various years

Source: Based on data from the African Centre for Statistics.

Note: Seychelles uses an income-based household survey.

HIGH INITIAL INEQUALITY

The period of sustained growth in most countries in Africa has boosted per capita incomes, reduced poverty and led to steady progress in education, health and living standards. But the pace of progress is slow, hampered by high levels of income inequality within countries. Economic growth delivers less poverty reduction when initial inequality is high because the absolute increases in income associated with rising average incomes are smaller for the bottom quintiles (Chandy, 2015).

Three features characterize the inequality landscape in Africa:

HIGH AVERAGE INEQUALITY

The unweighted average Gini coefficient in Africa is 0.44, which is the second highest after the Gini in Latin America (around 0.50), and nearly 12 per cent higher than the coefficient for the rest of the developing world, at 0.39. Seven of the 10

most unequal countries in the world are in Africa (AfDB, OECD and UNDP, 2016). The average within-country inequality masks wide-ranging variation from 0.31 in Egypt and Niger to 0.65 in South Africa and 0.66 in Seychelles (figure 2.5).

EXTREME INEQUALITY

South Africa, Namibia and Botswana are among the most unequal countries in the world, with the Gini exceeding 0.60 in 2013. Around 10 per cent of the African population live in highly unequal countries with the Gini in excess of 0.50 (shown in green in figure 2.5). A further 50 per cent live in countries with the Gini in the range of 0.40 to 0.50. In short, close to 60 per cent of the African population live in countries with very high to high levels of inequality.

BIFURCATION IN INEQUALITY TRENDS

While the average Gini in Africa has declined steadily since the early 1990s, countries show substantial variation, and are almost evenly split

TABLE 2.1 Inequality trends in 29 countries in Africa, 1993–2011

SUBREGION	INEQUALITY			
	DECLINED	INCREASED	INCREASED BEFORE DECLINING	DECLINED BUT IS RISING NOW
North Africa			Mauritania	
East Africa	Ethiopia Madagascar	Kenya Uganda	Rwanda	Tanzania
Central Africa	Cameroon			Central African Republic
West Africa	Burkina Faso Gambia Guinea Guinea-Bissau Mali Niger Senegal Sierra Leone	Côte d'Ivoire Ghana		Nigeria
Southern Africa	Lesotho Swaziland	Botswana Mauritius South Africa	Angola Mozambique	Malawi Zambia

Source: Based on information in Cornia (2016).

^a A 2014 study indicated a widening in inequality in Ethiopia, as measured by the Gini coefficient, from 0.298 in 2005 to 0.336 in 2011 (Alemayehu and Addis, 2014).

^b Côte d'Ivoire has reduced inequality since 2011 (World Bank, 2016b).

across rising and falling inequality in recent years. Cornia (2016) shows that within-country inequality can widen or narrow, and a good understanding of such bifurcation is essential to design suitable policies to raise the region's low poverty reduction elasticity of growth.

Inequality trends vary by subregion. In West Africa inequality fell steadily in nine out of 12 (mostly agrarian) economies, while a modest decline was recorded in some East African countries. In contrast, Southern and Central Africa show a rise after around 2003. Thus, after the early 2000s, there was a regional divergence in inequality trends, as most low-inequality countries experienced a decline and the high-inequality ones a rise or stagnation at high levels (Cornia, 2016). Six of the 10 countries with the highest Gini in Africa (see figure 2.5) are in Southern Africa, and in two of these (Botswana and South Africa) inequality increased in the period 1993–2011 (table 2.1). In Zambia, inequality declined during the 1990s, but has increased in 2001–2011.

Although Africa has had robust growth since 2000, its impact on poverty and inequality has been modest.

A highly unequal income distribution often reflects a polarized economy, where economic growth has a narrow base with weak connections to the rest of the economy (ILO, 2016b). Growth in labour-intensive sectors such as agriculture or manufacturing is typically more poverty reducing than growth in capital-intensive sectors such as mining (Ravallion and Datt, 1996; Khan, 1999; Ravallion, Chen and Sangraula, 2007; Loayza and Raddatz, 2010). As is well known, Africa's growth has been fuelled by commodity prices, which has intensified commodity dependence and social inequalities. Africa's reliance on commodities constrain poverty reduction through reducing aggregate income, creating a more unequal income distribution favouring commodity owners (Luke and Sommer, n.d.).

MISMATCH BETWEEN SECTORS OF GROWTH AND OF EMPLOYMENT

African agriculture is still an important contributor to GDP, particularly in West, East and Central Africa, where it contributes 29 per cent, 36 per cent, and 40 per cent of GDP, respectively (table 2.2). Although there has been a gradual shift in the traditional agricultural sector's contribution to GDP in Africa, it has not gone towards manufacturing as in the classic pattern of economic development seen in other regions. And even as agriculture's contribution to GDP fell in 1990–2012 across the continent,¹ the sector still accounted for nearly half of the labour force at the end of the period (table 2.3). Services absorbed more than a third of the workforce, and was the largest contributor to GDP in all subregions (except Central Africa). Industry, which comprises manufacturing, mining and construction, contributed 28–36 per cent of GDP in all subregions in 2012,² though it employed only about 9 per cent of the female and 16 per cent of the male workforce.

In most countries mining and utilities saw a rising share in GDP over 1990–2012. The resource-rich economies of Burkina Faso, Chad, Côte d'Ivoire, Guinea and Zambia witnessed some of the largest shifts of economic activity towards these two subsectors. Over the same period, Angola, Ghana, Mozambique and Nigeria saw large declines in them. But these economies started off from an initially very high base, with very large shares of mining in GDP—in Angola and Nigeria, mining and utilities combined contribute up to 53 per cent and 44 per cent of GDP, respectively (Bhorat, Naidoo and Pillay, 2016).

With this mismatch between the growth sectors and employment creation, Africa's transition out of the primary sector into largely informal and low-productivity tertiary activities has not led to the desired structural transformation. Labour has often moved from low-productivity agriculture to equally low-productivity urban, informal activity.

Agriculture is central to most African economies, as should be policies to promote the sector's growth, increase its global competitiveness and serve as a mechanism for reducing the incidence of working poverty. Increased income generation through agriculture is also a key avenue for reducing overall income inequality in Africa (Bhorat, Naidoo and

TABLE 2.2 Sectoral breakdown of economic activity in Africa, 1990–2012

REGIONS	SECTOR	1990	2000	2010	2011	2012	1990– 2000 CHANGE	2000– 2012 CHANGE
North Africa	Agriculture (% of GDP)	21.46	18.81	14.18	14.33	14.95	-2.65	-3.87
	Industry ^a (% of GDP)	31.83	34.40	35.59	35.65	35.69	2.58	1.29
	of which: Manufacturing (% of GDP)	15.17	14.28	13.87	13.93	12.89	-0.89	-1.38
	Services (% of GDP)	46.71	46.78	50.24	50.02	49.36	0.07	2.58
West Africa	Agriculture (% of GDP)	34.97	34.47	31.27	29.54	28.83	-0.50	-5.64
	Industry ^a (% of GDP)	21.82	23.41	22.37	24.47	29.18	1.59	5.77
	of which: Manufacturing (% of GDP)	9.56	8.91	6.00	5.87	5.99	-0.65	-2.92
	Services (% of GDP)	43.21	42.12	47.26	47.12	43.08	-1.10	0.96
East Africa	Agriculture (% of GDP)	39.91	32.74	32.63	32.92	35.95	-7.17	3.21
	Industry ^a (% of GDP)	16.60	16.58	18.45	18.65	17.06	-0.02	0.49
	of which: Manufacturing (% of GDP)	8.82	7.81	8.41	8.26	7.84	-1.01	0.03
	Services (% of GDP)	43.49	50.68	48.92	48.43	46.99	7.19	-3.69
Central Africa	Agriculture (% of GDP)	30.83	25.01	32.32	32.13	39.73	-5.83	14.72
	Industry ^a (% of GDP)	27.26	38.49	36.71	37.90	27.59	11.23	-10.90
	of which: Manufacturing (% of GDP)	10.97	7.05	4.06	4.13	4.35	-3.91	-2.71
	Services (% of GDP)	41.91	36.51	30.97	29.97	32.68	-5.40	-3.83
Southern Africa	Agriculture (% of GDP)	18.44	14.68	12.15	11.78	9.15	-3.76	-5.54
	Industry ^a (% of GDP)	34.68	33.21	32.84	32.98	31.73	-1.47	-1.49
	of which: Manufacturing (% of GDP)	17.92	15.39	14.78	14.16	11.44	-2.53	-3.95
	Services (% of GDP)	46.88	52.40	55.01	55.24	59.13	5.52	6.72

Source: Bhorat, Naidoo and Pillay (2016).

^a Industry corresponds to International Standard Industrial Classification (ISIC) divisions 10–45 and includes manufacturing (ISIC divisions 15–37). It comprises value added in mining, manufacturing (also reported as a separate subgroup), construction, electricity, water and gas.

TABLE 2.3 Sectoral distribution of employed persons, 2004–2012 (%)

SUBREGION	WOMEN			MEN		
	AGRICULTURE	INDUSTRY	SERVICES	AGRICULTURE	INDUSTRY	SERVICES
Central Africa	65.9	7.7	26.0	58.4	10.2	30.2
Eastern Africa	78.1	4.2	17.4	73.5	7.0	19.0
North Africa	40.4	12.9	46.6	24.5	28.3	47.0
Southern Africa	34.9	9.0	45.7	29.0	24.3	42.9
West Africa	43.4	9.9	44.8	51.7	12.2	34.0
Africa	52.5	8.7	36.1	47.4	16.4	34.6

Source: Based on data from ILO (2016a).

The sum of employed persons by gender might not add up to 100 percent because this table ignores sectors not adequately defined in the original KILM database.

Pillay, 2016). At the same time, making the informal sector more sustainable for employment, creating linkages to the formal sector and providing an enabling business environment for the informal sector to thrive is essential for more equitable growth. Expanding the small waged employment base must be a key strategy to reduce inequality in most countries.

RAPID POPULATION GROWTH AND DELAYED DEMOGRAPHIC TRANSITION

RAPID POPULATION GROWTH

Africa's population grew at an average 2.6 per cent a year in 1990–2015, more than twice the world average (UNECA and UNFPA, 2016). In the same period Asia and Latin America and the Caribbean achieved rapid declines in annual population growth. Not only was Africa's annual population growth rate the world's highest, it remained in the range of 2.4–2.6 per cent since 1990 (figure 2.6)—increasing marginally if anything, from 2.44 to 2.55 per cent.

Projected changes in population can be decomposed into fertility, mortality, migration and momentum effects.³ In Africa the fertility component accounts for around three-quarters of the increase to 2050 (UNDESA, 2013).

Africa's population grew at an average 2.6 per cent a year in 1990–2015, more than twice the world average.

SLOW FERTILITY DECLINE

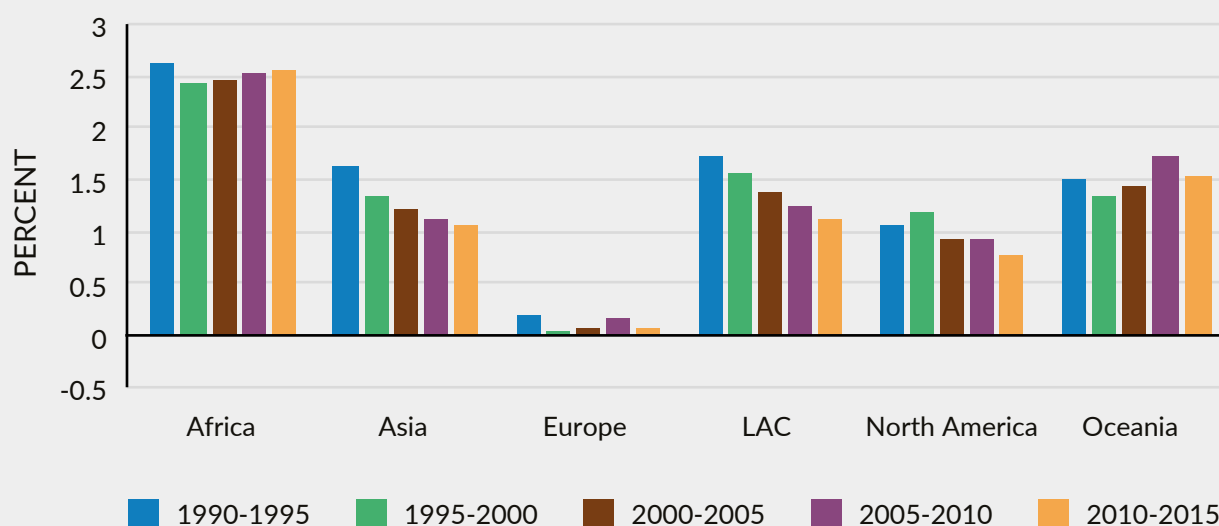
Africa's fertility rates are falling (table 2.4), but not quickly, and the gaps between Africa and the rest of the world are wide, and projected to remain so.

Of the 21 high-fertility countries in the world with a total fertility rate (TFR) in excess of five children per woman, 19 are in Africa. These countries account for around two-thirds of the region's population. The region is forecast to account for 14 of the 15 countries with the highest fertility rates in the world in 2025–2030 (ODI, 2016).

Improved public health cut the under-five mortality rate by more than half from 149 deaths per 1,000 live births in 1990 to 70 in 2014. Increased child survival usually influences fertility rates, though with a time lag.⁴ But a disturbing trend is the very delayed decline in Africa's TFR, of only about 1.5 births in 25 years (see table 2.4), which is at variance with the gains in reducing child mortality during the period.

Household wealth makes a difference to the TFR, which is higher for the poor than the rich (table 2.5) in all African countries with data.

FIGURE 2.6 Average annual rate of population change, 1990–2015



Source: UNDESA (2015b).

TABLE 2.4 Change in total fertility rate, 1990–2014

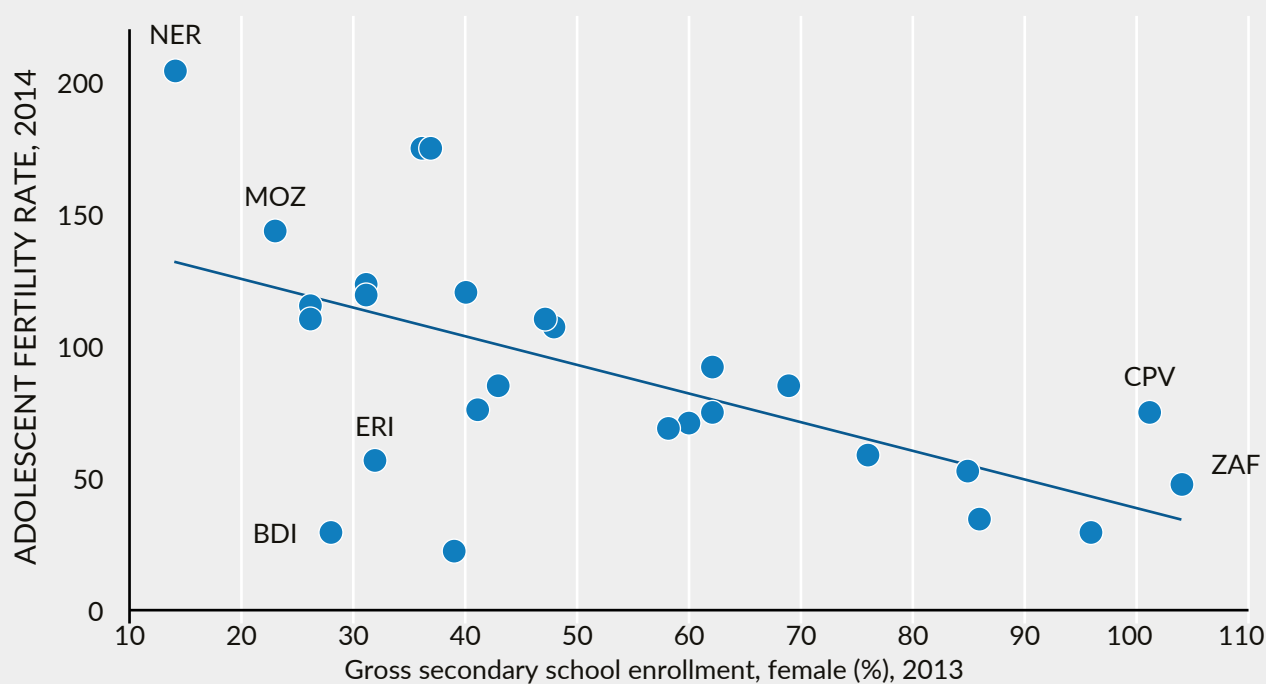
SUBREGION	AVERAGE NUMBER OF BIRTHS PER WOMAN		ABSOLUTE DECLINE IN AVERAGE NUMBER OF BIRTHS PER WOMAN, 1990–2014	AVERAGE % DECLINE, 1990–2014
	1990	2014		
North Africa	4.87	3.2	1.67	34.3
East Africa	6.46	4.69	1.97	27.4
Central Africa	5.99	4.77	1.22	20.4
West Africa	6.53	5.05	1.48	22.7
Southern Africa	5.33	3.86	1.47	27.6
Africa	5.98	4.44	1.54	25.8

Source: Based on data from UNDESA (2015b).

In most regions, at low fertility (typically in richer countries), the difference between the bottom and the top quintiles tends to be small (in the order of 0.5 to 1 live birth), but at higher fertility (usually in poor countries), the difference widens.

Africa had the world's highest adolescent fertility rate (births per 1,000 women aged 15–19) in 2010–2015, at 98, followed by Latin America and the Caribbean, at 67. It also has the world's lowest

female secondary gross enrolment ratio. The two are linked: keeping girls in school delays marriage and childbearing, and teenage women attending secondary school are less likely to become mothers. For 27 countries in Africa with comparable data, the adolescent fertility rate drops sharply in countries where more girls attend secondary school (figure 2.7). The causality can also run the other way, and teenage women are less likely to attend secondary school when they become mothers.

FIGURE 2.7 The adolescent fertility rate drops when female secondary school enrolment expands

Source: Based on data from UN DESA (2015) and UNESCO (2016).

Note: Births per 1,000 women aged 15–19 years.

* BDI=Burundi, CPV=Cabo Verde, ERI=Eritrea, MOZ=Mozambique, NER=Niger and ZAF=South Africa.

TABLE 2.5 Total fertility rate per 1,000 live births, by quintile

		POOREST QUINTILE	RICHEST QUINTILE	SUBREGIONAL AVERAGE (POOREST QUINTILE)	SUBREGIONAL AVERAGE (RICHEST QUINTILE)
North Africa	Algeria	3.1	2.3	4.4	2.8
	Mauritania	5.7	3.1		
East Africa	Burundi	6.2	5.7	6.9	3.7
	Comoros	6.7	3.4		
	Congo, Dem. Rep.	7.6	4.9		
	Ethiopia	6.0	2.8		
	Kenya	7.0	2.9		
	Madagascar	6.8	2.7		
	Tanzania	7.0	3.2		
	Uganda	7.9	4.0		
Central Africa	Cameroon	7.0	3.3	6.7	4.1
	Chad	6.8	6.0		
	Central African Republic	7.0	4.6		
	Congo, Rep.	7.0	3.8		
	Gabon	6.6	2.9		
	São Tomé and Príncipe	5.6	3.9		
West Africa	Benin	6.1	3.9	6.7	3.7
	Burkina Faso	7.1	3.7		
	Côte d'Ivoire	6.7	3.2		
	Gambia	6.7	3.8		
	Ghana	6.0	2.9		
	Guinea	6.5	3.4		
	Guinea-Bissau	6.4	2.8		
	Liberia	6.6	2.8		
	Mali	6.7	4.7		
	Niger	8.2	6.1		
	Nigeria	7.0	3.9		
	Senegal	7.3	3.4		
	Sierra Leone	6.1	3.0		
	Togo	6.3	3.5		
Southern Africa	Malawi	6.4	3.3	6.1	2.9
	Mozambique	7.2	3.7		
	Namibia	5.5	2.3		
	Swaziland	4.8	2.7		
	Zambia	7.1	3.0		
	Zimbabwe	5.3	2.6		
Average (unweighted)				6.5	3.6

Source: DHS data for latest years: <http://www.statcompiler.com/en/>.

IMPACT OF POPULATION ON ECONOMIC GROWTH

Per capita GDP growth provides a more realistic picture of Africa's economic position than the aggregate figure (figure 2.8). When 2.6 per cent (table 2.6) is lopped off aggregate growth for population growth, annual per capita growth in the last quarter century comes in at just 1.1 per cent, which is far from enough to reduce poverty quickly. The table also helps to explain, with contracting per capita GDP in the 1990s, why the poverty headcount ratio actually increased in that decade.

KEY CONCLUSIONS

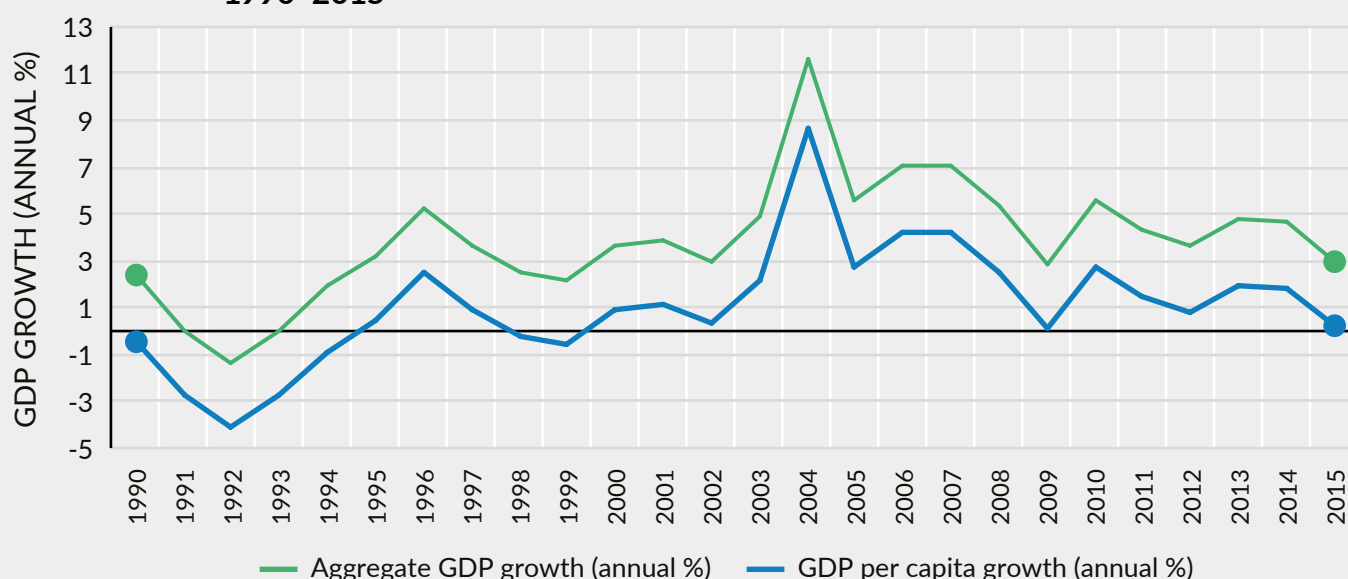
In spite of strong growth witnessed in most countries in Africa since the early 2000s, poverty reduction has been slow and the number of people in poverty on the continent has stayed almost constant since 2002. A high poverty gap ratio, high initial inequality and slow growth in agriculture, where the bulk of the

A high poverty gap ratio, high initial inequality and slow growth in agriculture, where the bulk of the poor find a living, have all contributed to damping the poverty-reducing impact of economic growth.

poor find a living, have all contributed to damping the poverty-reducing impact of economic growth.

And, despite the impressive progress in enhancing child survival, the decline in fertility has stalled, particularly in 14 countries that account for half the continent's population. The slow overall decline in fertility may delay the demographic transition in Africa that is necessary for the demographic dividend. In particular, and as now discussed, the slow decline in fertility and high adolescent fertility rates limit women's opportunities to acquire human capital and become full economic participants.

FIGURE 2.8 Aggregate and per capita annual GDP growth in Africa other than North Africa, 1990–2015



Source: Based on data from World Development Indicators (2016).

TABLE 2.6 Difference between annual average aggregate and per capita GDP growth rates in Africa other than North Africa, 1990–2015 (%)

	AGGREGATE GDP GROWTH	PER CAPITA GDP GROWTH	DIFFERENCE	ANNUAL POPULATION GROWTH RATE, 1980–2011
1990–2000	2.46	-0.12	2.58	2.6
2001–2010	5.28	2.70	2.58	
2011–2015	3.03	0.44	2.59	
1990–2015	3.66	1.07	2.59	

Source: Based on data from UNCTAD (2016). Population growth rate from UNECA (2015).

2.2 WOMEN IN AFRICA'S GROWTH

Reducing gender disparities and enhancing women's access to economic opportunities can generate broad productivity gains and improve other development outcomes, including prospects for the next generation. Gender inequality in the labour market causes lost benefits to individuals, households and society. This has huge economic implications, with annual economic losses due to gender gaps in the labour force estimated at \$60 billion for Africa other than North Africa (Bandara, 2015).

Gender gains in Africa since 2000 have been uneven across countries and subregions, and gender inequality remains a key development challenge.

Higher participation in the labour force and greater earnings by women can result in higher expenditure on school enrolment for children, including girls, potentially triggering a virtuous circle of social and economic growth (IMF, 2013). Women's work, paid and unpaid, is often the single most important poverty-reducing factor in many countries (Heintz, 2006).

But gender gains in Africa since 2000 have been uneven across countries and subregions, and gender inequality remains a key development challenge.

WOMEN'S ACCESS TO EDUCATION AND HEALTH

EDUCATION

Access to education contributes to the increased participation of women in the labour force. Women gain access to the labour market and to multiple job opportunities as they become better educated and skilled.

Women in Africa receive on average 4.3 mean years of schooling, against men who get 5.7 years, for an Africa-wide gender gap of 1.4 years. Subregionally, West Africa is the worst off with girls having 2.5 mean years of schooling, or two years less than boys (figure 2.9). In Algeria, DRC, Equatorial Guinea, Liberia and Togo, the gender disparity on this metric is 3–3.3 years. In Niger girls average less than one year of schooling, which tallies with the fact that in DRC, Niger and Mali, more than half the girls aged 15–19 are married (AfDB, 2015).

Per capita gross national income (GNI) and women's education are positively associated (figure 2.10). Women in higher-income countries, such as Botswana, Gabon and South Africa, have 9–10 years of schooling—higher than the average for East Asia and for Latin America and the Caribbean, and close to the average in Europe and Central Asia (UNDP, 2015). Six countries⁵—three of them in Southern Africa—have a reverse gender gap in mean years

FIGURE 2.9 Gender gap in mean years of schooling by subregion, 2014

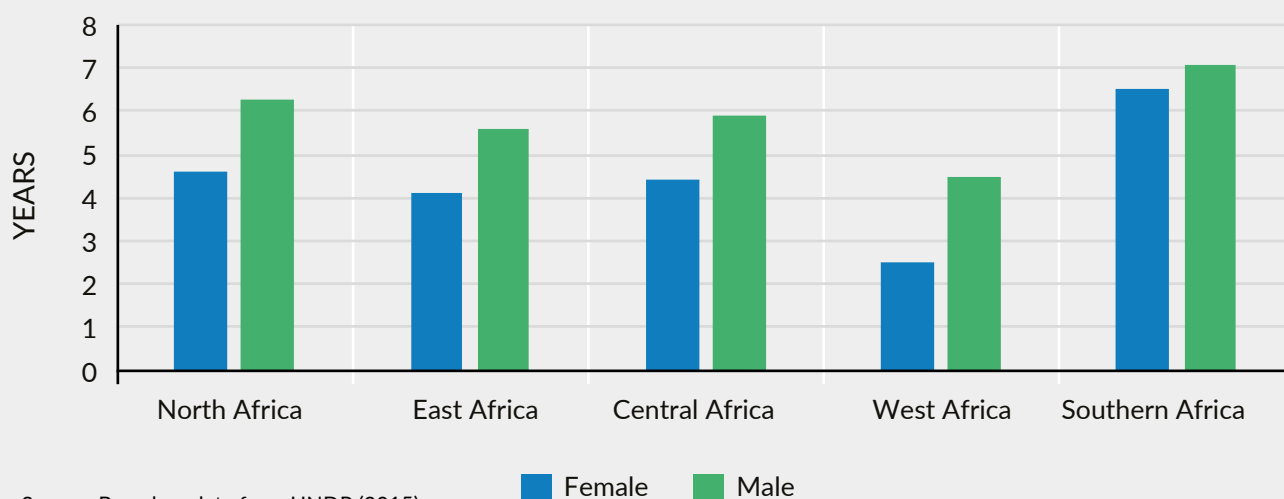
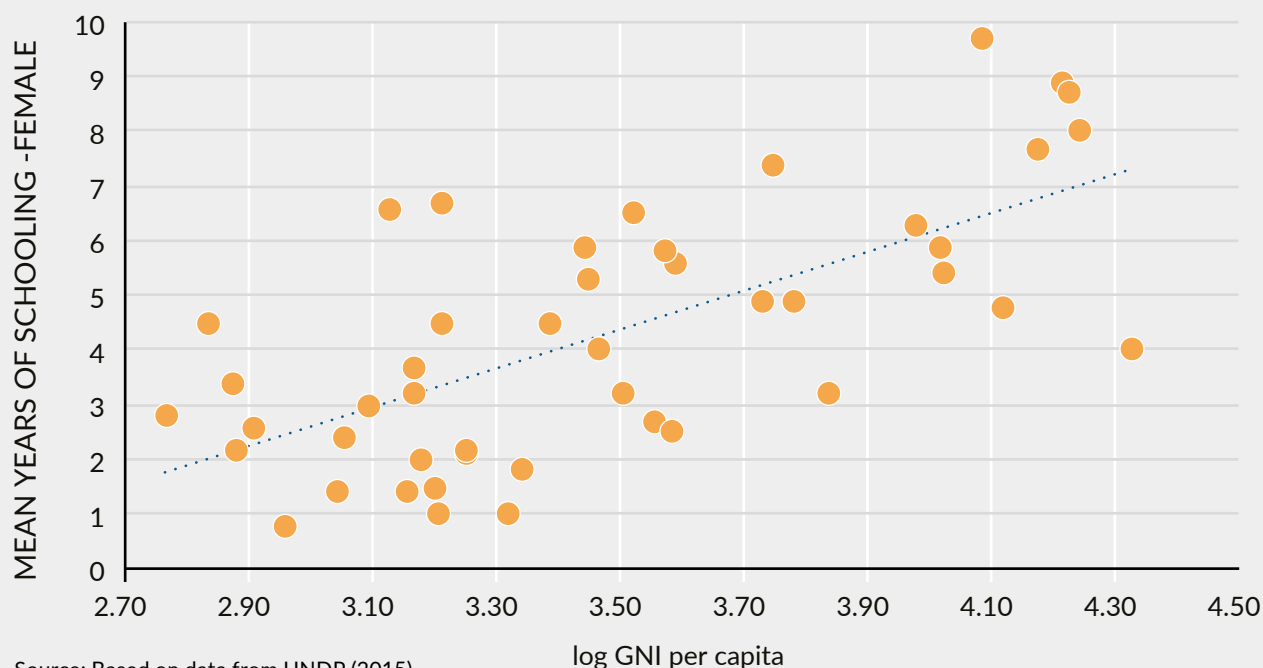


FIGURE 2.10 Years of education received by women increase with per capita GNI



of schooling, that is, women have more years of schooling than men.

The positive association between per capita GNI and women's education makes sense: education is both a (normal) consumer good, more of which is demanded at higher income levels, and a productive asset that results in higher income.

Africa's gender gaps in primary education have been largely closed, with the ratio of female to male primary enrolment rates reaching 92 per cent, though with wide national variations (figure 2.11). In Eritrea fewer than half (47.1 per cent) of the girls were enrolled in primary school in 2010–2015 (AEO, 2016). Angola and South Sudan educate fewer than 70 girls per 100 boys in primary school.

FIGURE 2.11 Gender-based difference in gross enrolment ratio (primary), 2010–2015

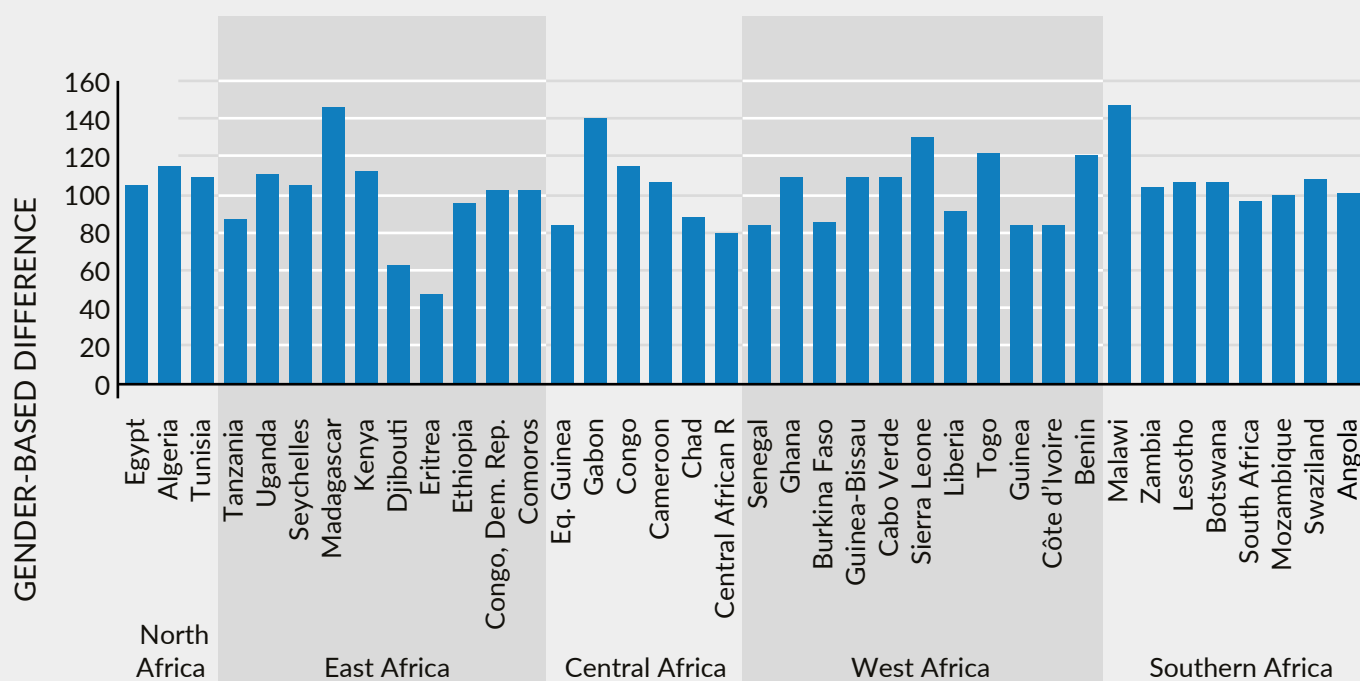


TABLE 2.7 Change in gender gap in primary completion rates, 1999 and 2014 (M:F)

	NORTH AFRICA	EAST AFRICA	CENTRAL AFRICA	WEST AFRICA	SOUTHERN AFRICA
1999	1.11	1.19	1.33	1.59	1.04
2014	1.01	1.07	1.18	1.09	1.05

Source: Based on data from UNESCO (2016).

The gender gap in primary completion rates narrowed in 1999–2014 in all subregions (table 2.7), except in Southern Africa where it increased marginally. West Africa and Central Africa recorded the sharpest declines. Still, 18 per cent more boys completed primary education in Central Africa than girls in 2014.

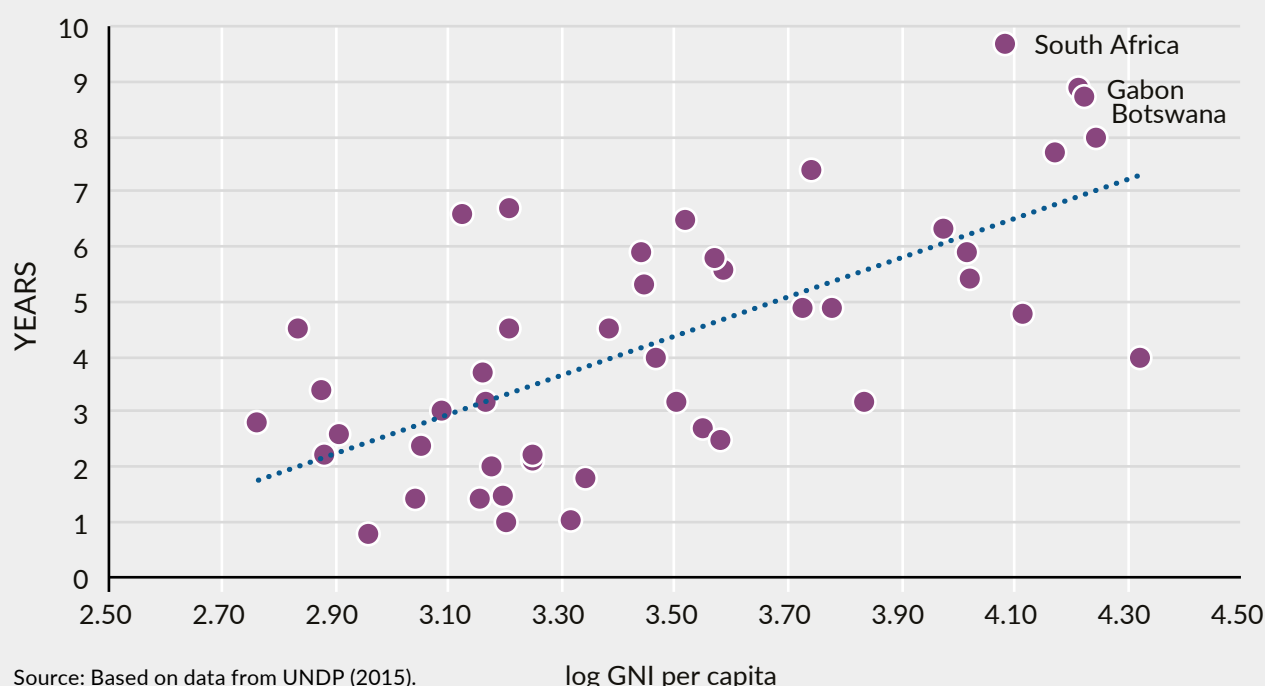
Overall, 51.1 per cent of women and men are enrolled in secondary education, though the ratio of female-to-male enrolment averages 92 per cent. Again there are wide variations among countries, and so while the female gross enrolment ratio in secondary education exceeds 100 per cent in Algeria and South Africa, only 12 and 16 per cent of women access secondary education in the Central African Republic and Niger, respectively.

Gender gaps in education have been declining but literacy rates for women continue to lag behind those of men. Africa other than North Africa records the lowest youth literacy rates worldwide, and boys are more likely to be able to read and write than

girls. The female to male literacy ratio for Africa is only 80, far below the world average of more than 90 (AfDB, OECD and UNDP, 2016). The gap in youth literacy rates between girls (75.3 per cent) and boys (81.5 per cent) is, globally, the widest in Africa (AfDB, OECD and UNDP, 2016). The performance of the region reflects serious disparities in access to high-quality basic education and literacy opportunities.

While the educational attainment of boys and girls from households in the richest quintiles is very similar, gender inequalities intensify among the poor. On average there is a more than 25 percentage point difference in primary school age children out of school between the poorest and richest quintiles, again with wide variations across countries—Nigeria has a 66 percentage point difference, whereas an equal proportion of children are out of school in Mauritania and Togo.

Poor girls face a significant schooling disadvantage in most countries in Africa, a disadvantage that is higher at lower incomes—the gender gap in the

FIGURE 2.12 Women generally have longer life expectancy in richer countries

median grade attained for 15–19 year olds is 3 or more for the bottom quintile, which narrows or even vanishes at the top quintile, as in Benin, DRC, Gambia and Togo (World Bank, 2012).

HEALTH

An important measure of women's status is life expectancy at birth. Drawing on cross-country data, figure 2.12 shows that women's life expectancy patterns are similar to those of women's education: life expectancy rises with income. But this result should be interpreted with caution as the data are very "noisy"—women in Equatorial Guinea (with a per capita GNI of \$21,056) and DRC (\$680) have similar life expectancies.

A parallel analysis finds that female life expectancy improves relative to male life expectancy as incomes rise; female life expectancy on average is about three years longer than male life expectancy, though again with wide variations. In Mauritius women's life expectancy is more than seven years longer than men's. In Libya and Rwanda the female life expectancy is higher than the male by 5.7 and 5.9 years, respectively (UNDP, 2015).

Two countries—Mali and Swaziland—have higher male than female life expectancy, which suggests lack of access to suitable health care by women. Mali is in West Africa, which is also the subregion with the lowest average mean years of schooling for women and, until recently, had the largest gender gap in primary completion rates (see table 2.7).

There is an Africa-wide gender gap as women receive on average 4.3 mean years of schooling, against men who get 5.7 years.

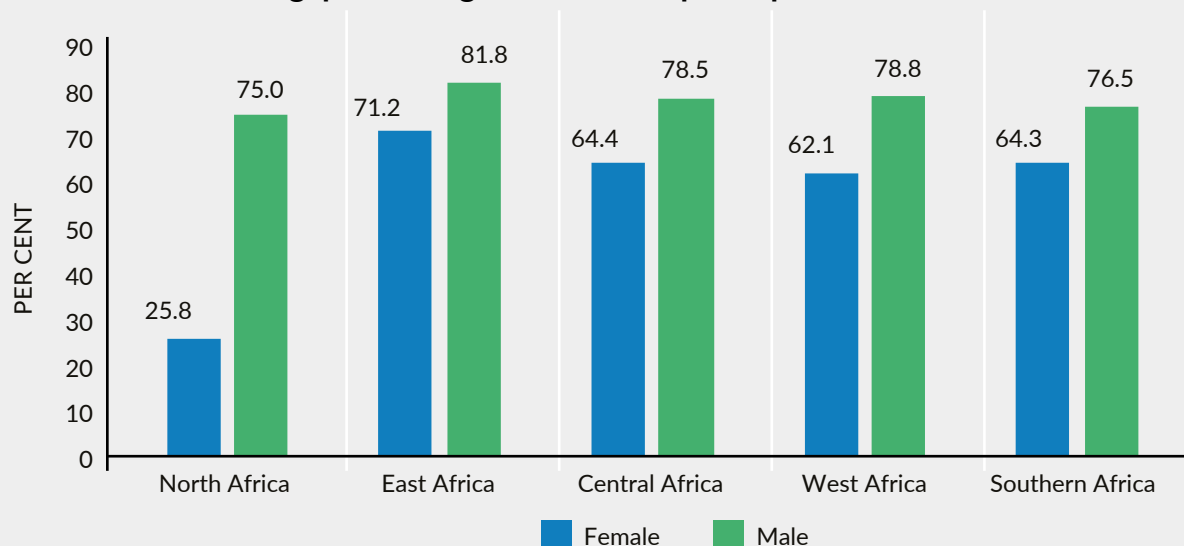
These points together suggest that women in West Africa are particularly disadvantaged. And unlike countries where the gender life expectancy gap rises with income, there is little difference in that gap in African countries as income rises.

WOMEN'S PARTICIPATION IN THE LABOUR FORCE

Women's participation in the labour market varies greatly across countries worldwide, reflecting differences in economic development, social norms, education levels, fertility rates and access to child care and other support services. The relationship between the female labour force participation rate (FLFPR) and these factors is complex but critical because the FLFPR is a driver of growth, and indicates a country's potential to grow more rapidly (Verick, 2014).

In Africa, too, the FLFPR varies considerably (from 15.2 per cent in Algeria to 88.1 per cent in Tanzania) and far more than men's (from 60.5 per cent in South Africa to 92.2 per cent in Equatorial Guinea).

FIGURE 2.13 Gender gap in average labour force participation rate



Source: Based on data from UNDP (2015).

The gender gap also differs strongly by subregion, with the highest gap in North Africa, at nearly 50 percentage points. The gap is in the 11–16 percentage point range in the other subregions (figure 2.13).

The stylized argument exploring the relationship between economic development and the FLFPR is that, at lower levels of per capita income, women work out of necessity, mainly in subsistence agriculture or home-based production, and so the FLFPR is high. As a country develops, economic activity shifts from agriculture to industry, household incomes increase, and women withdraw from the market in favour of household work and child care.

North Africa has the highest gender gap in average participation in the labour market.

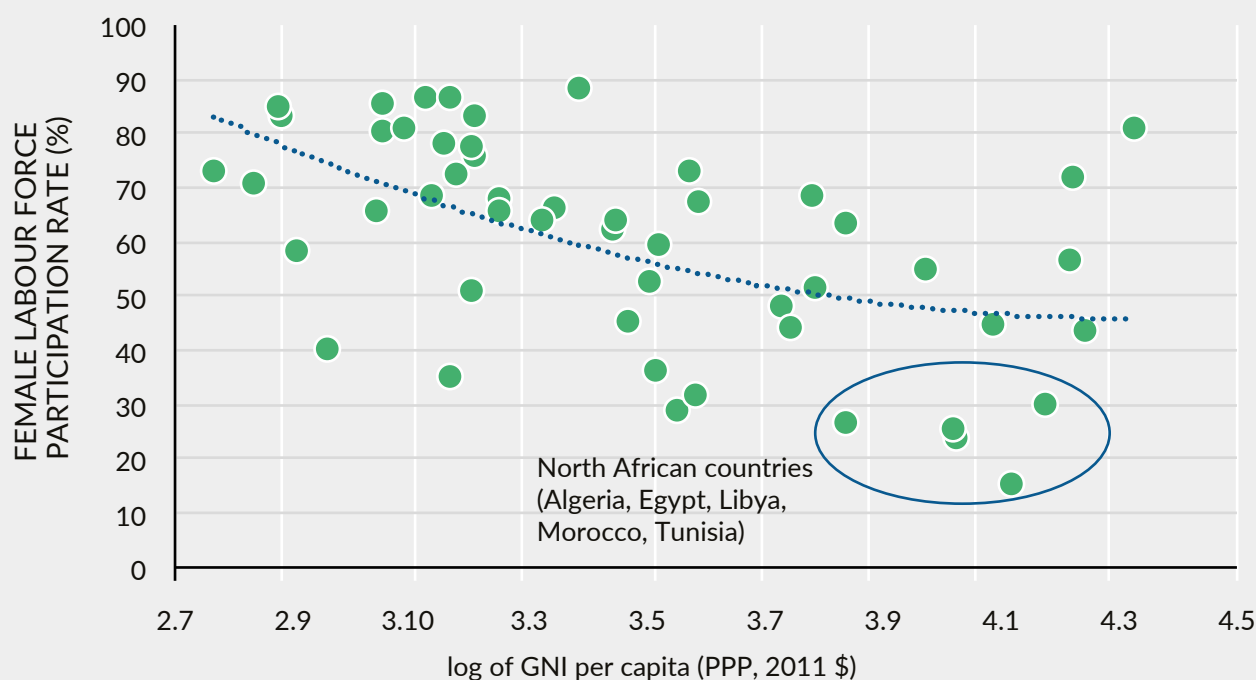
In still higher-income countries, the FLFPR rebounds as better education, lower fertility rates, access to labour-saving household technology and market-based household services enable women to take advantage of new jobs in the service sector that are

more family friendly and accessible (Duflo, 2012; Tsani et al., 2012; World Bank, 2011). This U-shaped relationship has been found to remain stable over time and to hold when one controls for country characteristics (IMF, 2013).

In Africa, however, regressing the FLFPR over log of per capita GNI gives an attenuated U-shape, suggesting an incomplete transition of women from agricultural and manual labour to jobs in the service sector at higher income levels. Strong socio-cultural norms in most North African countries keep the FLFPR low: 15–31 per cent of working age females are in the labour force, against an average of 69 per cent in the rest of Africa.

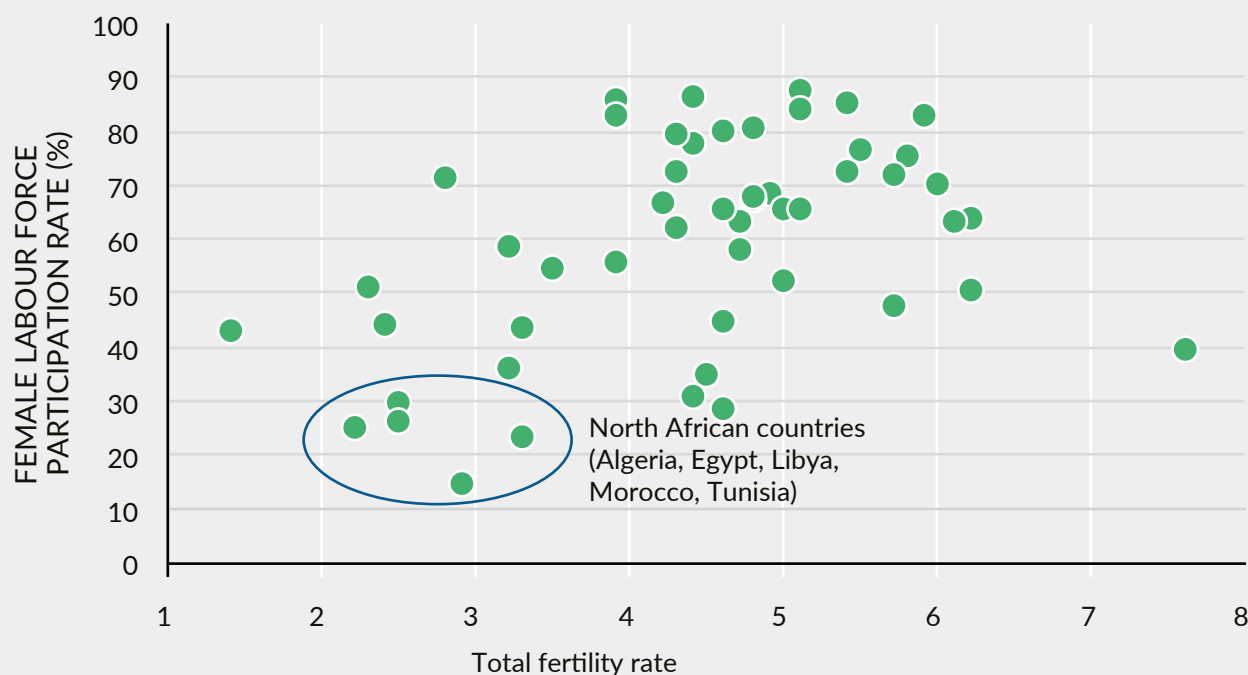
There is some indication of the completion of the U-shape with an increasing FLFPR in African countries with higher incomes (the data points on the right side of figure 2.14). But because of the few data points it is difficult to conclude that (i) the withdrawal of women from the labour market in middle-income countries (as observed from the slight dip in the curve in the middle) is not only for the socio-cultural reasons mentioned above; or that (ii) the incipient rebound observed on the right side is a result of increased women's education and reduced fertility. Much more intensive country-level research is necessary to confirm the nature of the link between the FLFPR and income.

FIGURE 2.14 Female labour force participation rate and per capita GNI, Africa



Source: Based on data from UNDP (2015).

FIGURE 2.15 Female labour force participation and total fertility rate



Source: Based on data from UNDP (2015).

A rising FLFPR in other regions has been linked to the completion of the fertility transition. In Africa, however, because fertility is declining very slowly or has virtually stalled in 14 countries with half of Africa's population, women have a high FLFPR at high fertility rates, though there is no clear association (figure 2.15). Average fertility is 4.44, and is 6.5 among the poorest quintile.

Women in Africa are not only entering the labour force in much greater numbers, they are also remaining in the labour force throughout their child-bearing and child-rearing years. They are no longer a reserve or secondary labour force. In the past, and particularly in developed countries, a "double peak" pattern was prevalent—most women entered the labour force in their twenties, left after a few years to bear and raise children and re-entered the labour force towards the end of their child-bearing years (Lim, 2002).

In Africa the FLFPR is high in all age groups and stays so until the end of women's productive years. This is possible only as women combine family responsibilities with labour market engagement in the informal economy, including own-account work.

A significant trend is the growing self-employment among women (and men), especially among those who do not have secure paid jobs. For example, the

proportion of self-employed among non-agricultural women workers doubled in most subregions in Africa (excluding Southern Africa) from 44 per cent in 1970 to 90 per cent in 1990 (United Nations, 2000). Among the self-employed, women are much more likely than men to be own-account workers rather than employers, and to be in the informal rather than the formal economy.

In some countries women are still concentrated in the category of unpaid family work (the share of contributing family workers among economically active women is over 56 per cent in Kenya and 23 per cent in Egypt). For these women, unpaid family work would involve both economic activities and care work looking after children (ILO, 2001).

Women's domestic responsibilities and lack of access to important assets, such as credit, land and skills, constrain their abilities to engage in productive

Women in Africa are not only entering the labour force in much greater numbers, they are also remaining in the labour force throughout their child-bearing and child-rearing years.

high-quality employment, even when they are part of the labour force.

KEY CONCLUSIONS

Two key conclusions emerge:

- Improved child survival rates and women's education, income and their participation in the labour force seem to have had little effect on fertility rates in Africa.
- There is a strong association between high fertility rates in Africa and women's informal and own-account employment.

Women have benefited from Africa's growth, though slowly. The big push for universal education over the last 20 years has helped to get nearly all children to school and come close to gender parity at the primary education level. But considerable gaps remain across subregions in access to secondary and higher education. Expectedly, fertility rates for poor women are higher than for the rich.

The big push for universal education over the last 20 years has helped to get nearly all children to school and come close to gender parity at the primary education level. But considerable gaps remain across subregions in access to secondary and higher education.

Women in Africa combine high fertility with high labour force participation. This is possible only because of their engagement in the informal economy where low levels of education combine with poor conditions of work and low remuneration to limit their opportunities for obtaining a fair return on their labour. Progress in fertility, gains in education and the shift of women to productive work are not only related but also mutually reinforcing.

2.3 RURAL-URBAN INEQUALITIES

Countries urbanize as they develop, and their economies restructure from agriculture into manufacturing and services. This structural transformation includes sectoral and occupational diversification as people seek more remunerative work outside agriculture and in urban areas.

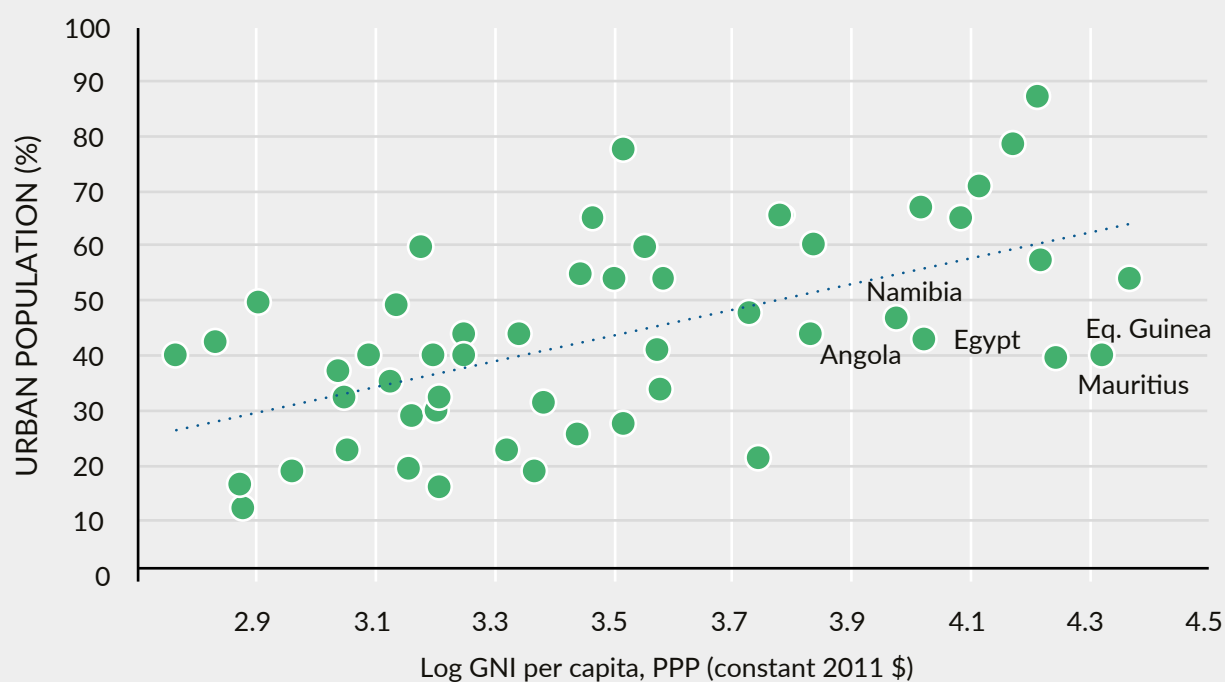
How these processes interact shows great diversity. In some countries the structural transformation goes along with rapid agglomeration in megacities (as for example in the Republic of Korea and the Philippines), while in others, people diversify out of agriculture into the rural non-farm economy and secondary towns—for example, Taiwan (China) and Thailand (Christiaensen, 2008; Otsuka, 2007). And just as varying processes of economic growth and structural transformation may yield quite different distributional and poverty outcomes, so disparate patterns of rural-urban transformation may be associated with different rates of economic growth, especially poverty reduction (Christiaensen, De Weerdt and Todo, 2013).

AFRICA'S HETEROGENEOUS URBANIZATION

The same positive correlation between per capita GNI and the share of population living in urban areas (extent of urbanization) exists in Africa as elsewhere in the world (figure 2.16). Countries in Africa exhibit widely different urbanization trends: of the 15 with income levels above \$6,000 per capita (2011 PPP), only five (Angola, Egypt, Equatorial Guinea, Mauritius and Namibia) cross this mark before reaching 50 per cent of the extent of urbanization (quadrant 1 in figure 2.17). They have an average per capita GNI of \$13,056 and an average urban population of 43 per cent.

In contrast, seven countries have achieved high extents of urbanization (averaging 62 per cent) at relatively low income levels (an average per capita GNI of \$3,688; quadrant III, figure 2.17). There is wide variation in the group of 17 countries that

FIGURE 2.16 Extent of urbanization and per capita GNI in Africa, 2014



have more than half their populations in urban areas (quadrants II and III): their per capita incomes range from \$1,507 (Gambia) to \$23,300 (Seychelles).

The bulk of the countries (31) are in quadrant IV, with an average per capita income of \$1,920 and average extent of urbanization of 32 per cent. Of these, 14

countries are less than 30 per cent urbanized.

Table 2.8 classifies countries in five categories to better reveal the type and pace of urbanization in Africa. The least urbanized countries are growing the fastest (figure 2.18). The annual rate of growth of the urban population in countries that are more

FIGURE 2.17 Extent of urbanization and per capita GNI in Africa, 2014

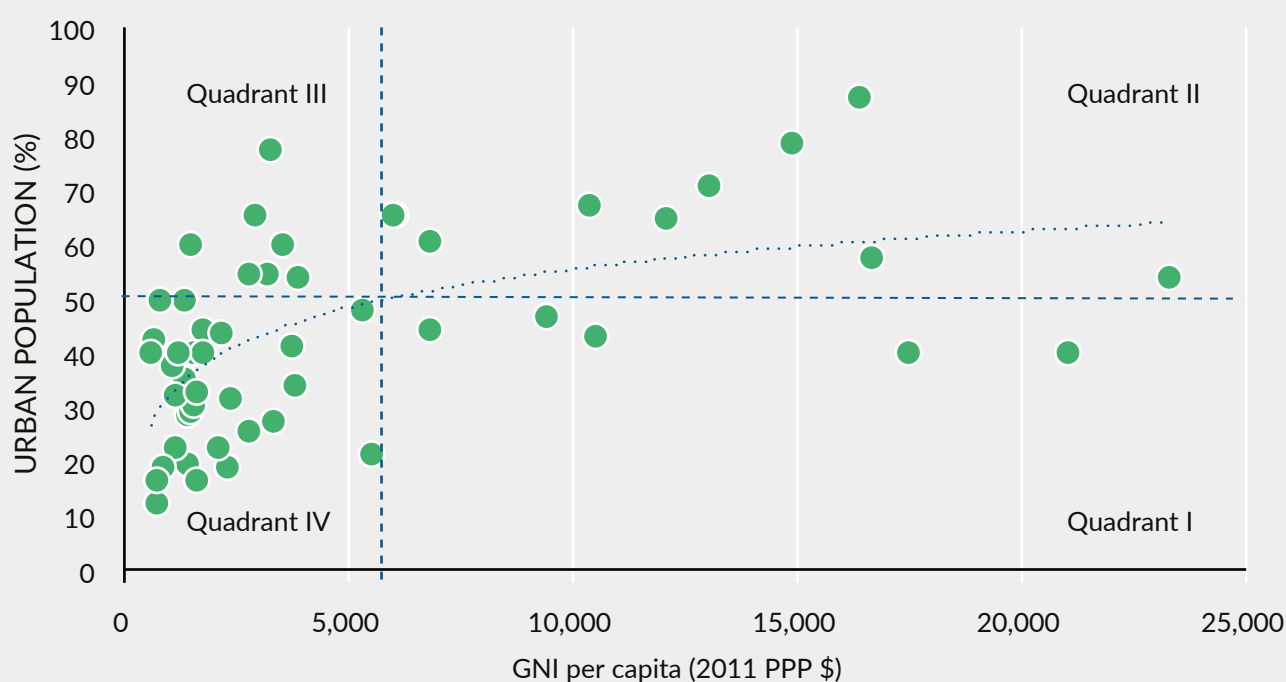


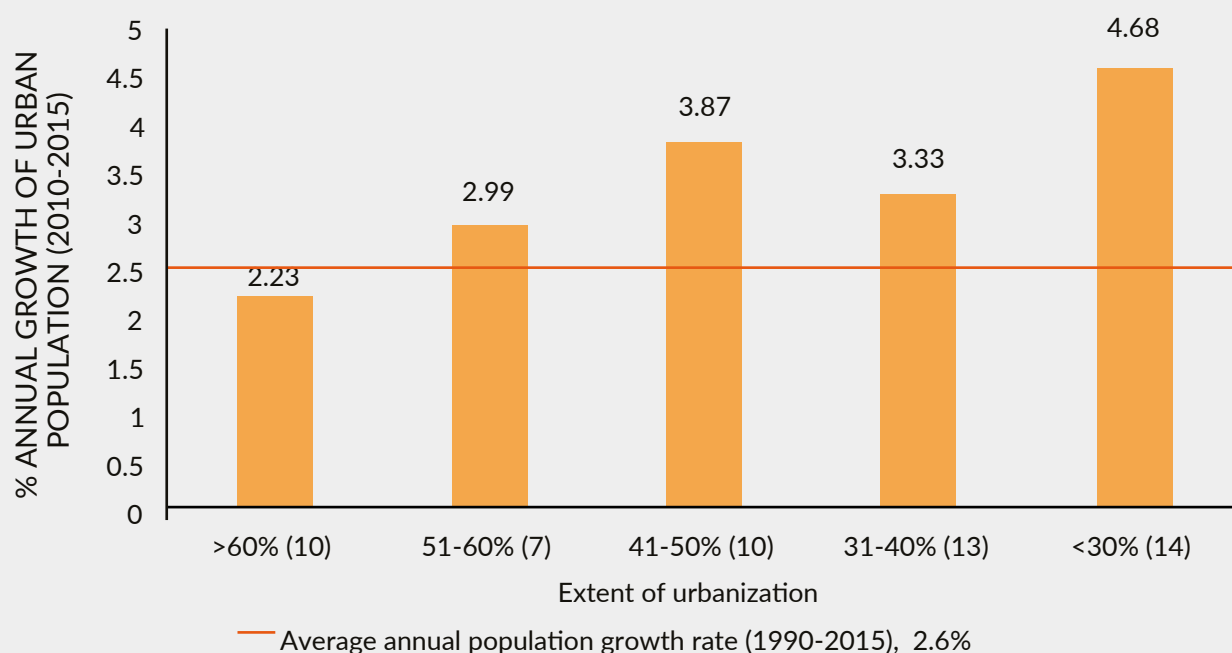
TABLE 2.8 African countries categorized by extent of urbanization, 2014

CATEGORY	URBAN POPULATION AS % OF TOTAL POPULATION	NUMBER OF COUNTRIES	COUNTRIES*		AVERAGE PER CAPITA GNI (2011 PPP \$)
			RESOURCE-RICH	NON-RESOURCE-RICH	
I	>60	10	Algeria, Libya (NA); Djibouti (EA); Rep. of Congo, Gabon (CA); South Africa (SA)	Morocco, Tunisia (NA); Cabo Verde (WA); São Tomé and Príncipe (CA)	9,201
II	51–60	7	Mauritania (NA); Côte d'Ivoire (WA); Ghana (WA); Cameroon (CA); Botswana (SA)	Seychelles (EA); Gambia (WA)	7,834
III	41–50	10	DRC (EA); Benin, Liberia, Nigeria (WA); Angola, Namibia, Zambia (SA)	Egypt (NA); Guinea-Bissau, Senegal (WA)	4,263
IV	31–40	13	Sudan (NA); Madagascar, Tanzania (EA); Guinea, Mali, Sierra Leone, Togo (WA); Central African Republic, Equatorial Guinea (CA); Mozambique, Zimbabwe (SA)	Somalia (EA); Mauritius (SA)	4,590
V	<30	14	Eritrea, Rwanda, South Sudan, (EA); Burkina Faso, Niger (WA); Chad (CA); Lesotho (SA)	Burundi, Comoros, Ethiopia, Kenya, Uganda (EA); Malawi, Swaziland (SA)	1,937
		54	36	18	5,031

Source: Data on urban population as a percentage of total population and average per capita GNI from UNDP (2015); country classification from UNECA (using the criteria specified below).

Note: * Resource-rich countries are those that have 20% or more of exports of either oil or minerals.

**CA-Central Africa, EA-East Africa, NA-North Africa, SA-South Africa and WA-West Africa

FIGURE 2.18 The rate of urbanization in Africa is high when the extent of urbanization is low

Source: Based on data from UNDESA (2015b).

Note: Figures in parentheses are the number of countries in each category.

than 60 per cent urbanized (category I countries) is 2.23 per cent, which is less than half the rate in countries less than 30 per cent urbanized (category V countries).

Although fertility rates are generally lower in urban than rural areas, assuming equal population growth rates in urban and rural areas, figure 2.18 shows that there is very little rural-urban migration in category I countries, and all urban growth is due to

The least urbanized countries are growing the fastest.

the natural increase in population. The contribution of rural-urban migration to growth of the urban population increases in countries in categories II–V and is the highest in the least urbanized (category V).

The data in figure 2.18 suggest that, on average, 13 per cent of the annual growth of the urban population in category II countries, 33 per cent in category III countries, 22 per cent in category IV countries and 44 per cent in category V countries can be attributed to rural-urban migration. This

is understandable because of spatial inequalities that exist at different levels of urbanization (and discussed next). All the same, further research is required for a more nuanced understanding of urbanization by extent and rate.

WELFARE DIFFERENCES ACROSS THE RURAL-URBAN DIVIDE

In almost every country in the world, average living standards in urban areas are higher than those in rural areas. This pattern is observed whether welfare is measured by average income, consumption, poverty indices, infant mortality, health, access to services or numerous other variables.

In Africa the size of urban-rural welfare gaps varies a great deal across countries, with less urbanization increasing the gap. For most countries mean consumption in urban areas is two to three times as large as in rural areas, ranging from 1.2 in Tanzania and Madagascar (category IV) to over 2.8 in Uganda and 3.5 in Burkina Faso (category V). Africa shows a strong positive cross-sectional correlation between the urban-rural consumption ratio and per capita GDP (World Bank, n.d.).

TABLE 2.9 Rural-urban differentials in wages and poverty in selected countries in Africa

	URBAN-RURAL WAGE RATIO		POVERTY HEADCOUNT RATIO AT THE POVERTY LINE	
	FORMAL	INFORMAL	RURAL	URBAN
Cameroon	1.36	1.26	55.0	12.2
Chad	1.45	1.06	58.6	24.6
Ethiopia	2.05	2.22	39.3	35.1
Gabon	1.08	2.71	44.6	29.8
Kenya	1.92	2.74	49.1	33.7
Mozambique	1.67	1.07	56.9	49.6
Niger	0.86	0.84	63.9	36.7
Nigeria	1.36	1.49	63.8	43.1
Tanzania	1.59	1.26	37.4	21.8
Togo	2.22	2.81	74.3	36.8
Uganda	2.03	2.34	27.2	9.1
Zambia	1.64	3.12	76.8	26.7

Source: Based on data from De Brauw, Mueller and Lee (2014).

Note: The wage ratios and the poverty headcount ratios are for different years in 2000–2009.

De Brauw, Mueller and Lee (2014) use the World Bank's International Income Distribution Database to estimate the ratio of urban to rural wages in the formal and informal sectors for selected African countries (table 2.9). In all cases except Niger urban wages exceed rural wages in both sectors. Formal sector wages appear to be generally higher on average than informal sector wages in urban areas, though the informal sector differential is actually higher in some cases. Six countries with urban informal wages more than double rural informal wages offer a high return to moving from the rural to the urban informal sector.⁶

As average wages may mask heterogeneity in returns to labour, table 2.9 also compares the poverty headcount ratio in rural and urban areas for the same set of countries. Matching the evidence on the ratio of urban to rural wages in the formal and informal sectors, poverty rates are consistently lower in urban areas.

A longstanding literature has highlighted the positive role of rural non-farm activities in poverty reduction, with rural towns, which mediate the flow of inputs, goods and services between rural hinterlands and large urban centres, seen as the most effective generators of non-farm employment for the poor (for example, Haggblade, Hazell and Reardon, 2007; Lanjouw and Murgai, 2009). Christiansen, De Weerdt and Todo (2013) find support for the notion that rural diversification and secondary town development are usually associated with inclusive growth patterns and rapid poverty reduction through generation of non-farm employment for the poor. Growth-promoting interventions that enable poor people to access this growth and basic infrastructure services more directly are thus also more likely to lift more of them out of poverty than when the benefits of growth have to spatially trickle down from the larger cities.

In Africa the size of urban–rural welfare gaps varies a great deal across countries, with less urbanization increasing the gap. For most countries mean consumption in urban areas is two to three times as large as in rural areas.

Joint evaluation of the trade-offs between these two counteracting forces (higher/lower average income growth and more unequal/equal income distribution) suggests that migration out of agriculture into the rural economy and secondary towns is substantially more poverty reducing than a rapid increase of large cities (Christiansen, De Weerdt and Todo, 2013).

Urban–rural differences in other social indicators are in figure 2.19. While urban–rural parity holds in birth registration in countries more than 60 per cent urbanized (category I), the difference is two times in category V countries. A similar disparity is seen in the proportion of births attended by skilled birth attendants.

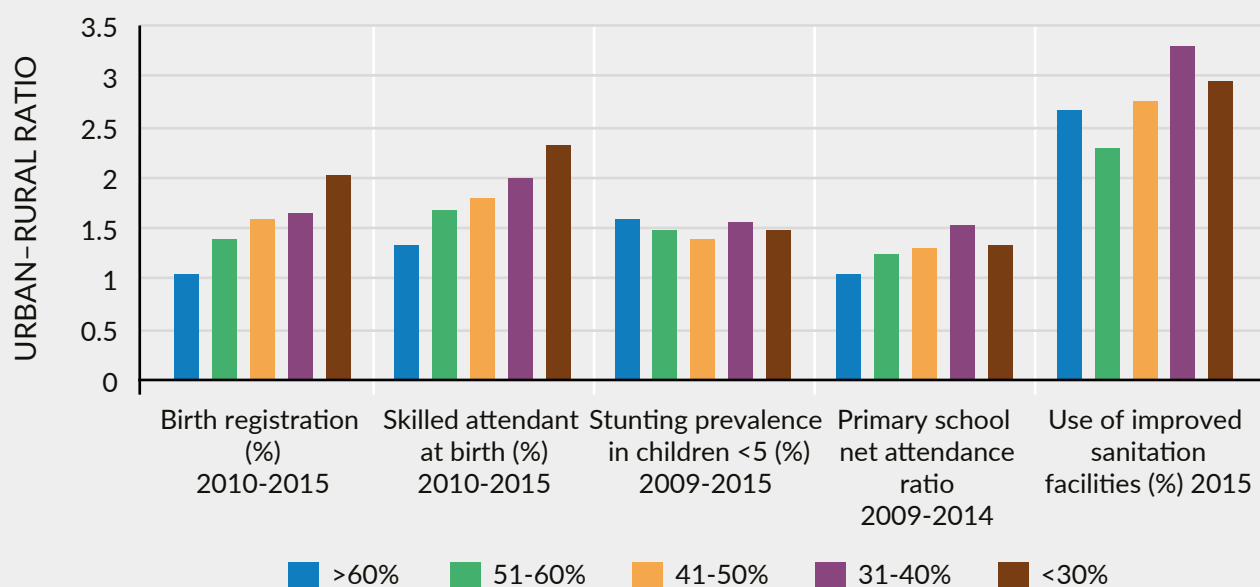
Yet urbanization seems to make little difference in the urban–rural variation in stunting, and the ratio moves within a very small range around 1.5 in all countries. In fact, the largest differences are seen in some of the most urbanized countries (in strong contrast to the mean consumption and poverty differences discussed earlier). There are several possible explanations. One is that basic non-food living expenses are much higher in more urbanized countries, leaving a smaller share of poor households' budgets for food needs. Another is that the more urbanized countries have greater problems with congestion and inadequacy of public health and sanitation in poor areas, contributing to urban undernutrition and morbidity.

Highly urbanized (category I) countries are close to urban–rural parity in primary school net attendance ratios. Varying little by extent of urbanization, they reflect success in meeting the Millennium Development Goal target of universal primary education in most countries. (Still, the averages mask differences among countries.)

There is widespread lack of urban–rural parity in use of improved sanitation facilities by category. The high urban–rural ratio in category I countries is driven mainly by Djibouti, where 60 per cent of urban dwellers have access to improved sanitation, but only 5 per cent in rural areas have similar access.

The urban–rural discrepancy on this indicator usually diminishes with urbanization. But there is little urban–rural convergence in access to improved drinking water sources even in highly urbanized countries (figure 2.20). Access to improved drinking

FIGURE 2.19 Urban–rural differences in selected indicators by extent of urbanization

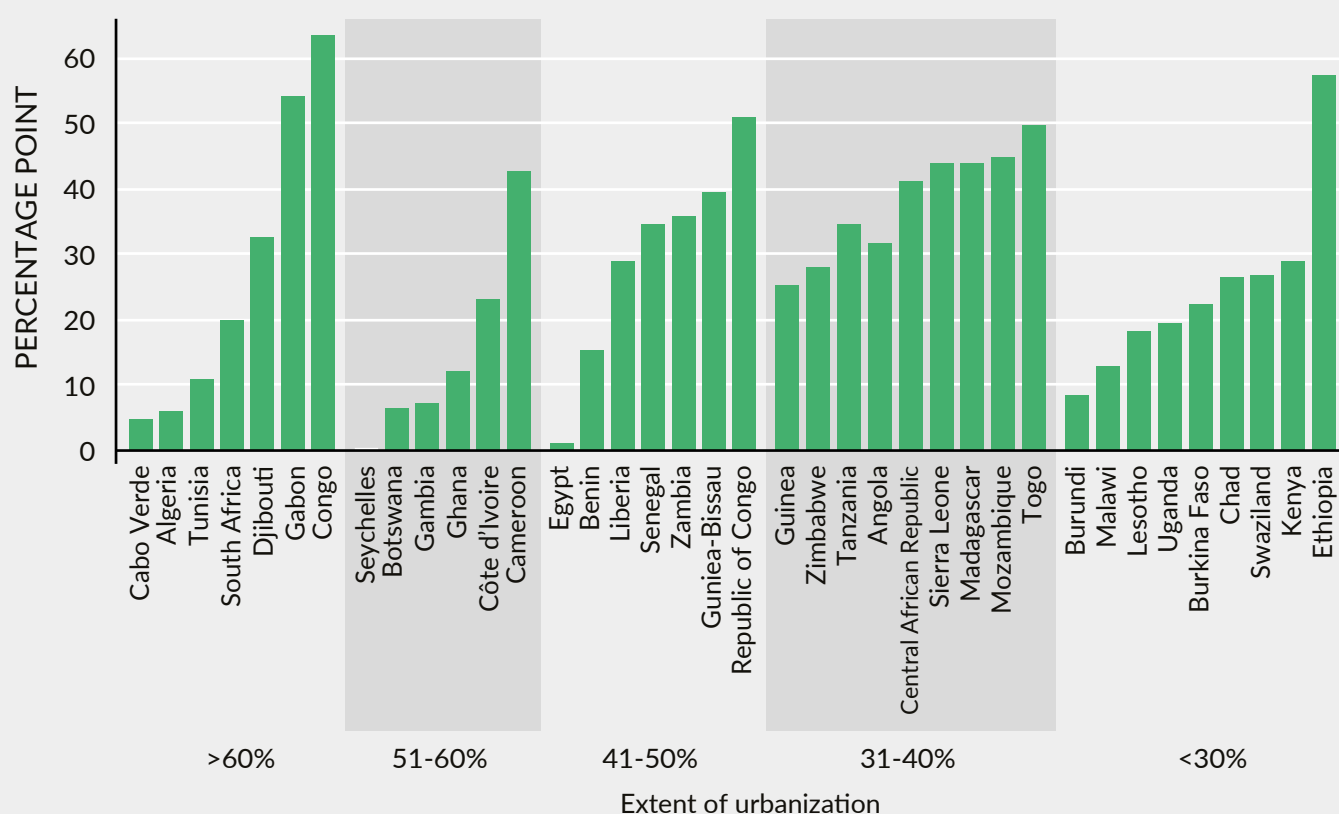


Source: Based on data from UNICEF (2016).

water in towns and cities among category V countries is around 9–29 percentage points higher than in rural areas. Ethiopia is an outlier with a 57 percentage point difference. But in the more urbanized category I countries, such as Cabo Verde,

Algeria, Tunisia and South Africa, the disparity in access is 5–20 percentage points—but Gabon and the Republic of Congo, also highly urbanized, have a 50–60 percentage point difference. This goes against the global trends where countries with high

FIGURE 2.20 Urban–rural differences in access to improved drinking water



Source: Based on data from UNICEF (2016).

urbanization exhibit almost no difference between urban and rural areas in access to basic services.

The growing concentration of people in cities will also have implications for health outcomes in Africa. With high population densities, cities account for a large and growing proportion of people living with HIV, tuberculosis (TB) and other diseases. For instance, there is evidence that the risk and vulnerability to HIV and TB infection is often higher in urban areas (UN Habitat and UNAIDS, 2015). At the same time, as centers of economic growth, education, innovation, social change and their own resources and regulatory powers to reach large numbers of people (Nairobi City County, 2016), cities are uniquely positioned to forge inclusive and participatory responses to HIV, TB and other diseases and take transformative action to ensure that services are delivered to all its citizens.

RURAL-URBAN MIGRATION

As evident from the preceding discussion, many African countries are in the first phase of urbanization and, unsurprisingly, have large urban–rural disparities in access to basic services. Consequently, people are “pulled” by social and economic opportunities or “pushed” by environmental deterioration, so that migration is an important component of urban population growth in Africa. Moving to cities is also often rural agricultural workers’ primary method to diversify income (Banerjee and Duflo, 2006). Indeed, it can be a very productive move, even for temporary migrants (Bryan, Chowdhury and Mobarak, 2011).

The growing concentration of people in cities will also have implications for health outcomes in Africa. Cities account for a large and growing proportion of people living with HIV, tuberculosis (TB) and other diseases and there is evidence that the risk and vulnerability to HIV and TB infection is often higher in urban areas.

Cities are uniquely positioned to forge inclusive and participatory responses to health challenges and take transformative action to ensure that services are delivered to all its citizens.

Although African cities have grown quickly over the past 50 years, rural–urban migration has played a relatively small role in recent growth (Kessides, 2007; Potts, 2012), and in such African countries as Côte d’Ivoire, is even negative (Beauchemin, 2011). Similarly, based on the conservative assumption that rural and urban population growth is equivalent, De Brauw, Mueller and Lee (2014) find that the population weighted rural–urban migration rate was 1.07 per cent a year between 1990 and 2000 in Africa, with substantial heterogeneity at country level. Although several countries have rural–urban migration rates of around 1 per cent, a few have very slow or negative rural–urban migration rates, while some experienced rates of over 2 per cent annually in the 1990s.⁷ It is likely that the rural–urban migration rate in most African countries after 2000 was in the same broad range, though data scarcity precludes confirmation.

International migration has received more attention in recent debates on migration in Africa, yet internal migration (migration within countries) is far higher in numbers of people and perhaps even in the volume of remittances and these funds’ poverty reduction potential (UNDP, 2009). However, the capacity of urban towns is limited to plan for urban growth and accommodate the internal migrants by providing employment and access to land and basic amenities. People who leave the countryside to find better lives in the city often have no choice but to settle in shanty towns and slums, where they lack access to decent housing, sanitation, health care and education—in effect trading rural for urban poverty. Consequently, migration has shifted the locus of global poverty to the cities, a process recognized as the “urbanization of poverty” (UN-Habitat, 2003).

Yet rural–urban migration in particular is seen as creating pressure on the urban infrastructure, environment and employment, and there is an underlying assumption among policymakers that the phenomenon is linked to rising levels of urban poverty. This perception misleads, however, because

urbanization can have positive impacts on the cost of infrastructure, the environment and employment, if guided by the right policy framework (as discussed in detail in the following chapters). Migration and urbanization and the links to poverty are complex, highly context-specific social processes. There are numerous multi-directional and multi-dimensional linkages between migration, urbanization and poverty; each can act to drive or prevent the others, and each can influence the outcomes of the others.

Migration can be a reaction to severe poverty, or a chosen livelihood strategy to improve household wealth. For example, in Ghana during the economic slump from the 1970s to the 1980s, migration became the basic survival strategy for families (Kwankye and Anarfi, 2011). In recent times the independent migration of girls and women has become common as households have begun to see the benefits of remittances from female members working as domestic workers, as head porters (*kayayei*) or in markets (Awumbila, Owusu and Teye, 2014).

International migration has received more attention in recent debates on migration in Africa, yet internal migration (migration within countries) is far higher in numbers of people and perhaps even in the volume of remittances.

Large differences in income and living standards between places, as well as the general perception that migrant households are better off than non-migrant households, act as incentives for people to move (Clemens and Pritchett, 2008; Sabates-Wheeler, Sabates and Castaldo, 2005). Studies on urbanization indicate that, in internal migration in Africa, key pull factors are income, employment and other opportunities for personal success and development in the more developed urban centres, all of which are severely curtailed in rural areas (Black et al., 2006; Kwankye et al., 2009). Even when cities' formal employment declines, they offer a wealth of opportunities in their huge, informal labour markets (Songsore, 2003).

Management of the rural-urban transition in a way that preserves growth and promotes equity is one of the major challenges facing policymakers in most African countries.

Rural-urban migration is an inherent component of the development process and necessary for narrowing the productivity gap between agriculture and other sectors.⁸ Management of the rural-urban transition in a way that preserves growth and promotes equity is one of the major challenges facing policymakers in most African countries. Investments that help to create quality employment in urban areas, especially in secondary cities and smaller towns, are critical for absorbing rural migrants and urban populations expanding from natural demographic growth. Investing in the development of rural-urban economic links, including value chains processing agricultural products and other natural resources, will help to ensure that urban development goes hand in hand with rural development. (Again, these topics are discussed at length in the following chapters.)

KEY CONCLUSIONS

There is a wide difference in welfare across the rural-urban divide, with wage rates higher and poverty lower in urban than rural areas. Rural-urban parity is seen in many (not all) social indicators in highly urbanized countries. In the 1990s the rural-urban migration rate in Africa was estimated to be slightly more than 1 per cent a year, though good, reliable and recent data are patchy.

Most of the urbanization discourse focuses on the national rate of urbanization, obscuring key analytical features and often narrowing the policy debate to issues concerning large cities. However, recognition is growing that the distinction between secondary towns and large cities is central for analysis and policy, and that the composition of urbanization is at least as important as its aggregate rate for economic growth and the equitable distribution of its benefits. Cities also have a major role in combating AIDS and other high-burden diseases.

2.4 CONCLUSIONS AND KEY MESSAGES

The poor in Africa live much further below the extreme poverty threshold than those in other regions, with an average consumption of about 60 per cent of the international poverty line. This points to the challenges in achieving the Sustainable Development Goal target of eliminating poverty on the continent by 2030.

Even though inequality has declined in many African countries since 2000, average within-country inequality levels are high and hamper the poverty-reducing effect of economic growth.

Nearly 50 per cent of Africa's labour force works in agriculture, a sector that reduced its share in total GDP in almost all African subregions in 1990–2012. Low agricultural productivity depresses demand and wages, and slows poverty reduction.

At 2.6 per cent a year, Africa has the fastest rate of population growth in the world. In 10 countries it exceeds 3 per cent a year. The slow decline in fertility rates (slower than child mortality rates) and its virtual stalling in the 14 countries with half the continent's population delay the demographic transition and checks the opportunity to unlock the demographic dividend.

Despite gains, gender inequality remains a key development challenge in Africa. Gender gaps in primary education have largely closed, but with wide variations across subregions. Poor girls face a significant schooling disadvantage in most countries, which is worse at lower incomes.⁹

African women combine family responsibilities with labour market engagement in the informal economy, including own-account work, where low levels of education, poor conditions of work and low remuneration limit their opportunities for obtaining a fair return on their labour.

Increased child survival rates and women's education, income and their participation in the labour force, seem to have little impact on fertility. Policymakers should combine long-term development programs, such as provision of social infrastructure and improving the status of women, with short-term interventions, such as meeting the

unmet need for family planning and its awareness creation.

Africa's urbanization reflects considerable variation, as countries at different income levels have urbanized at different rates. Unlike global trends urban–rural differences in welfare and living standards in Africa do not seem to narrow with increasing urbanization. Rural–urban migration is a rational response to access social and economic opportunities.

Many urban municipal authorities lack the capacity to plan for urban growth and accommodate the migrants who end up settling in shanty towns and slums, which can stimulate transmission of AIDS, TB, and other diseases. Such migrants often swap rural poverty for its urban variant. Investment in basic urban services and in capacity building of subnational governments, especially in secondary cities, to manage urban growth should therefore be a high policy priority for inclusive growth.

The policy response to urbanization needs to cover the entire rural–urban continuum, including secondary cities, reflecting the growing recognition that the distinction between secondary towns and large cities is central for analysis and policy, and the composition of urbanization is at least as important as its aggregate rate for inclusive growth and distribution.

Most of the urbanization discourse focuses on the national rate of urbanization, obscuring key analytical features and often narrowing the policy debate to issues concerning large cities.

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ENDNOTES

- 1 Except in East and Central Africa in 2000–2012.
- 2 Except in East Africa where its share of GDP is 17 per cent.
- 3 Momentum effects are conditioned by population age structure at the starting point of a projection. In countries undergoing a demographic transition with a young age profile, the population will continue to grow because births by a large group of women in the reproductive age cohort will exceed mortality.
- 4 According to the theory of demographic transition, it takes some time for people to adjust their fertility behaviour.
- 5 Gabon, Lesotho, Libya, Madagascar, Namibia and Swaziland.
- 6 Ethiopia, Gabon, Kenya, Togo, Uganda and Zambia.
- 7 This excludes the serious disturbances that led to population movements during the 1990s, and massive resettlements as wars ended in Mozambique, Rwanda, Somalia and Sudan.
- 8 Rural–urban migration can play a major role in fostering growth and poverty reduction by reallocating resources more efficiently—geographically and sectorally—across the economy. China offers a spectacular example of its transforming role, where an estimated 16 per cent of GDP growth in 1987–2005 came from such migration (World Bank, 2007).
- 9 Particularly more important is gender parity in secondary education, which has huge implications for expediting the demographic (fertility) transition as well as in banking the potential demographic dividend.

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.

Urbanization is one of the defining forces of the planet's 21st century development.

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.

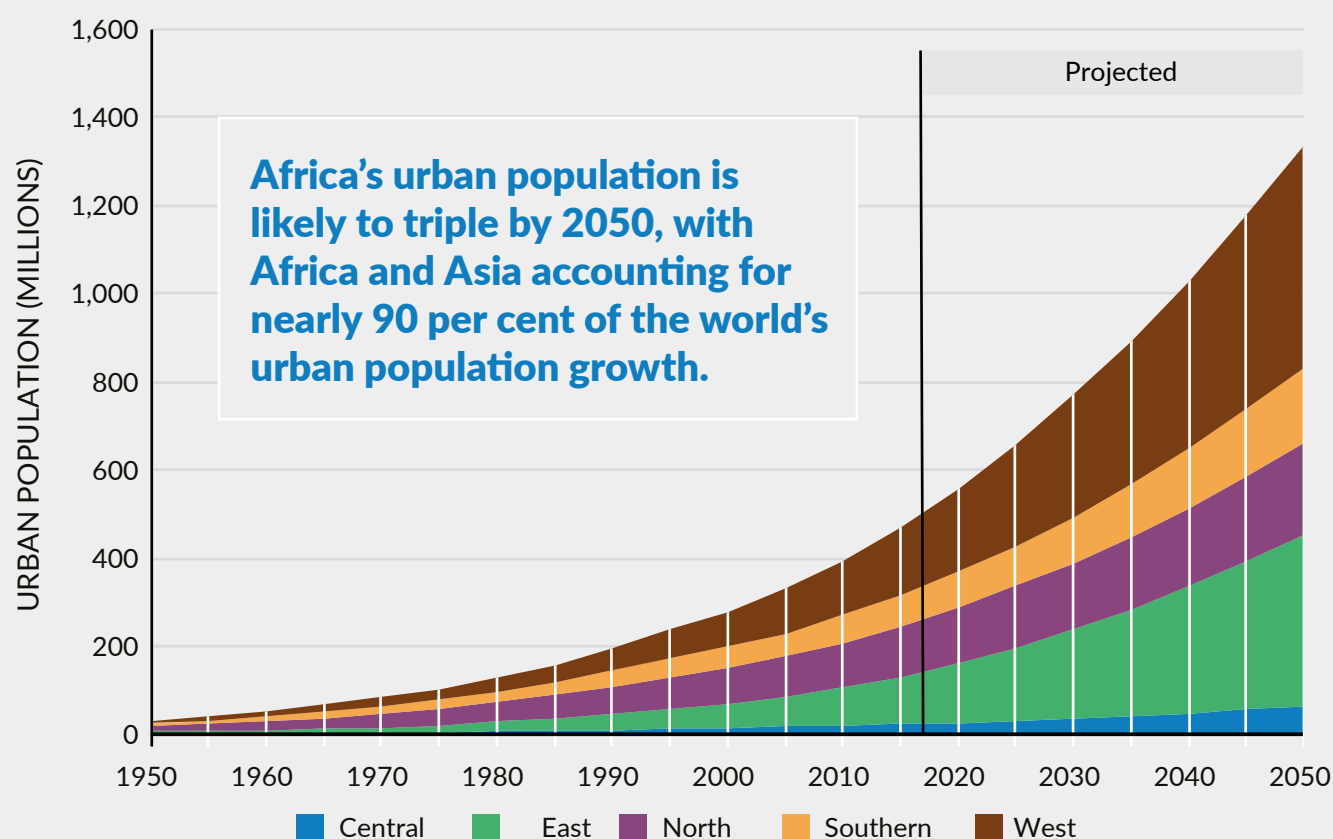
more detail the nexus between the two elements, using a conceptual framework of drivers, enablers, barriers and policy levers. Chapter 5 highlights country experiences related to the urbanization–industrialization nexus from case studies, showing how urban demand, productive systems of cities and productive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

3.1 URBANIZATION IN AFRICA: TRENDS, PATTERNS AND DRIVERS

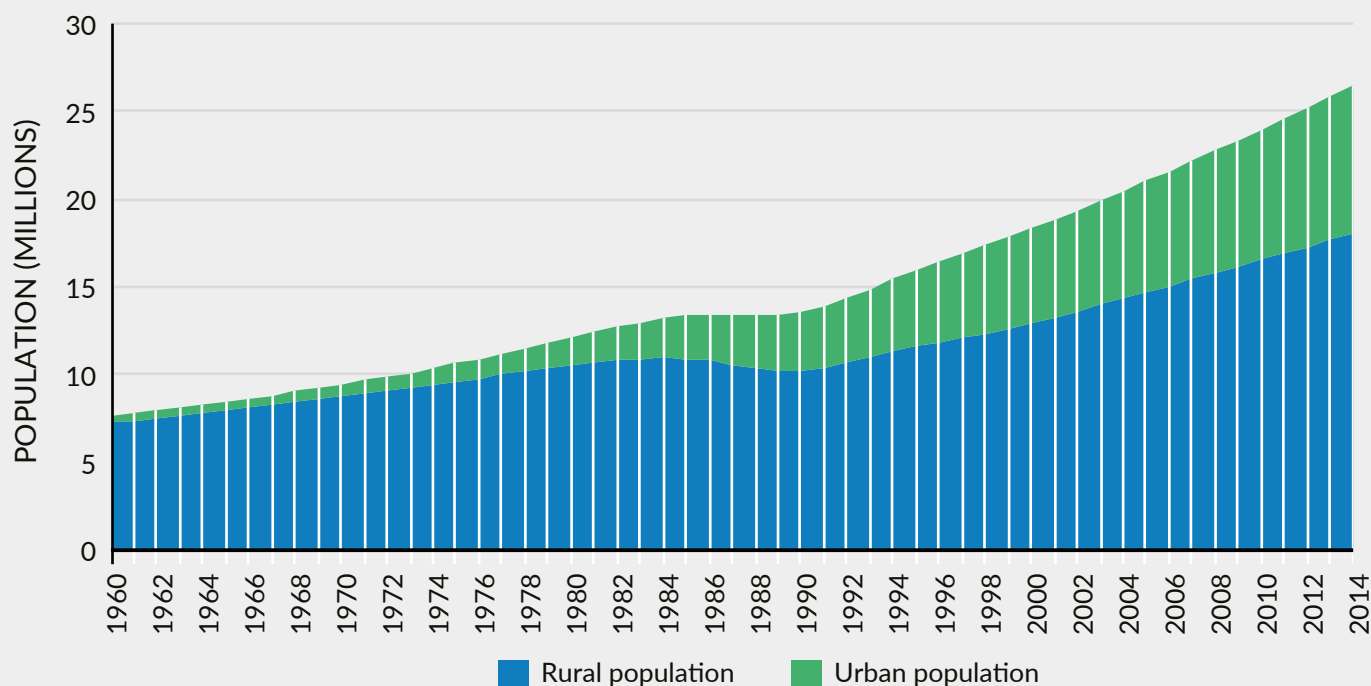
The world is increasingly urban, and Africa, along with parts of Asia, is now an epicentre of urbanization. Africa's urban populations have been growing since

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

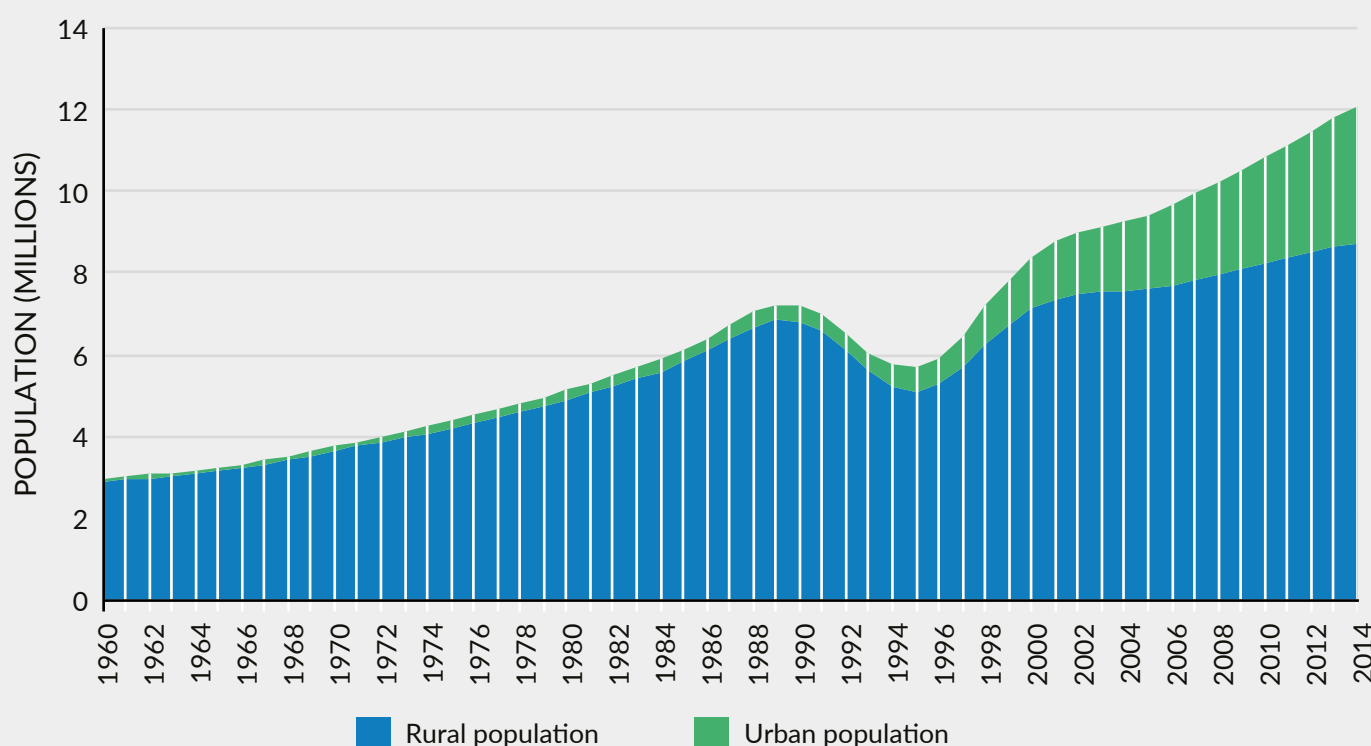
FIGURE 3.1 Urban populations by African subregion, 1950–2050



Source: Based on UNDESA (2014).

FIGURE 3.2 Mozambique's urbanization, 1960–2014

Source: World Development Indicators.

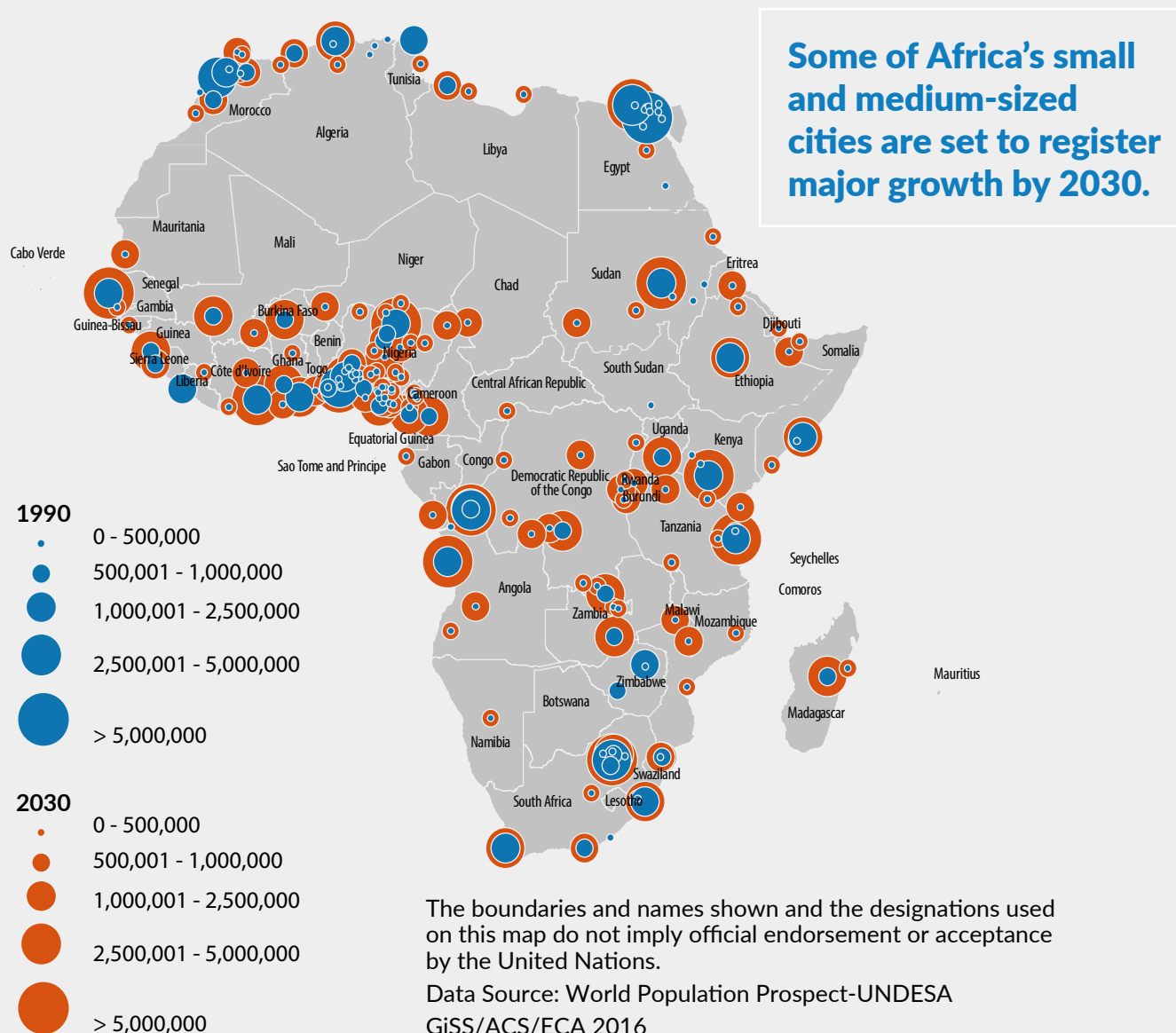
FIGURE 3.3 Rwanda's urbanization, 1960–2014

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

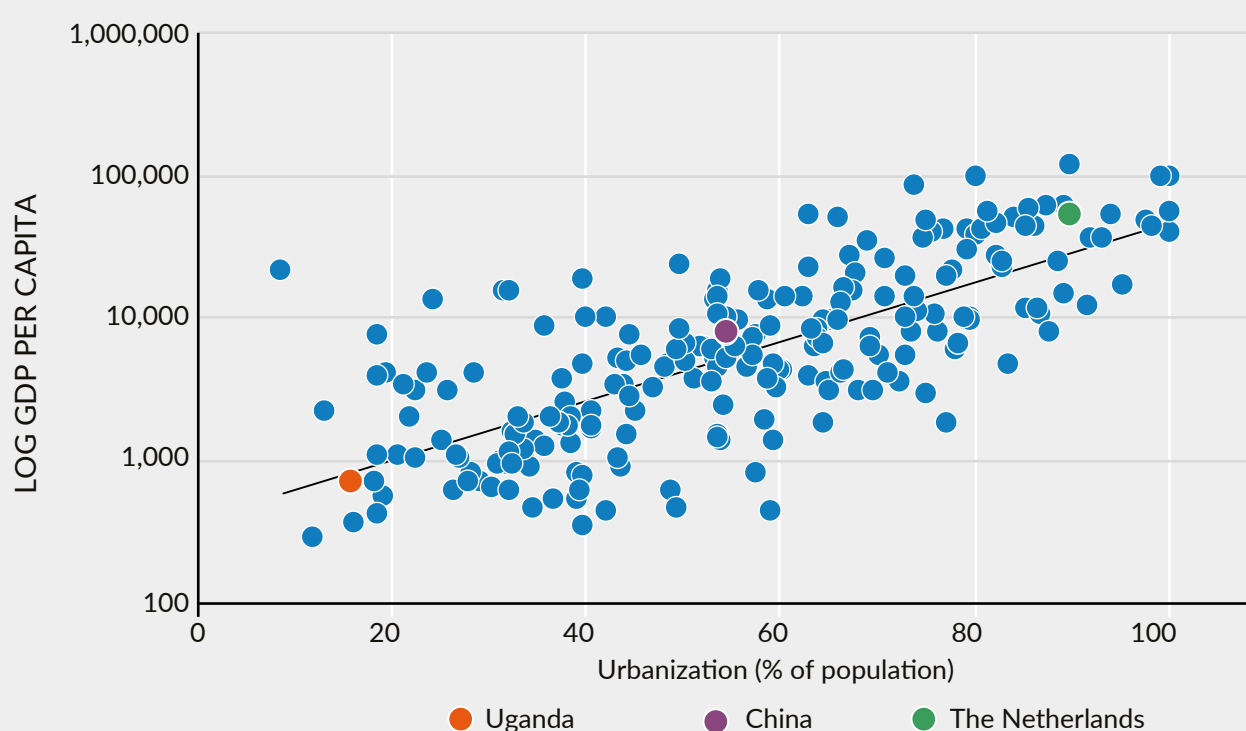
Agglomeration offers major economic benefits, but Africa's urbanization is often characterized by poverty and informality, with residential and social segregation creating poverty traps and reducing economic mobility. Urban inequality and informality are especially problematic when economic growth is 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).

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.

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).

Knowledge is transferred and technology diffused through trade and foreign direct investment. Urbanization facilitates this process.

3.5 LINK BETWEEN URBAN POPULATION GROWTH AND INCOME IN AFRICA

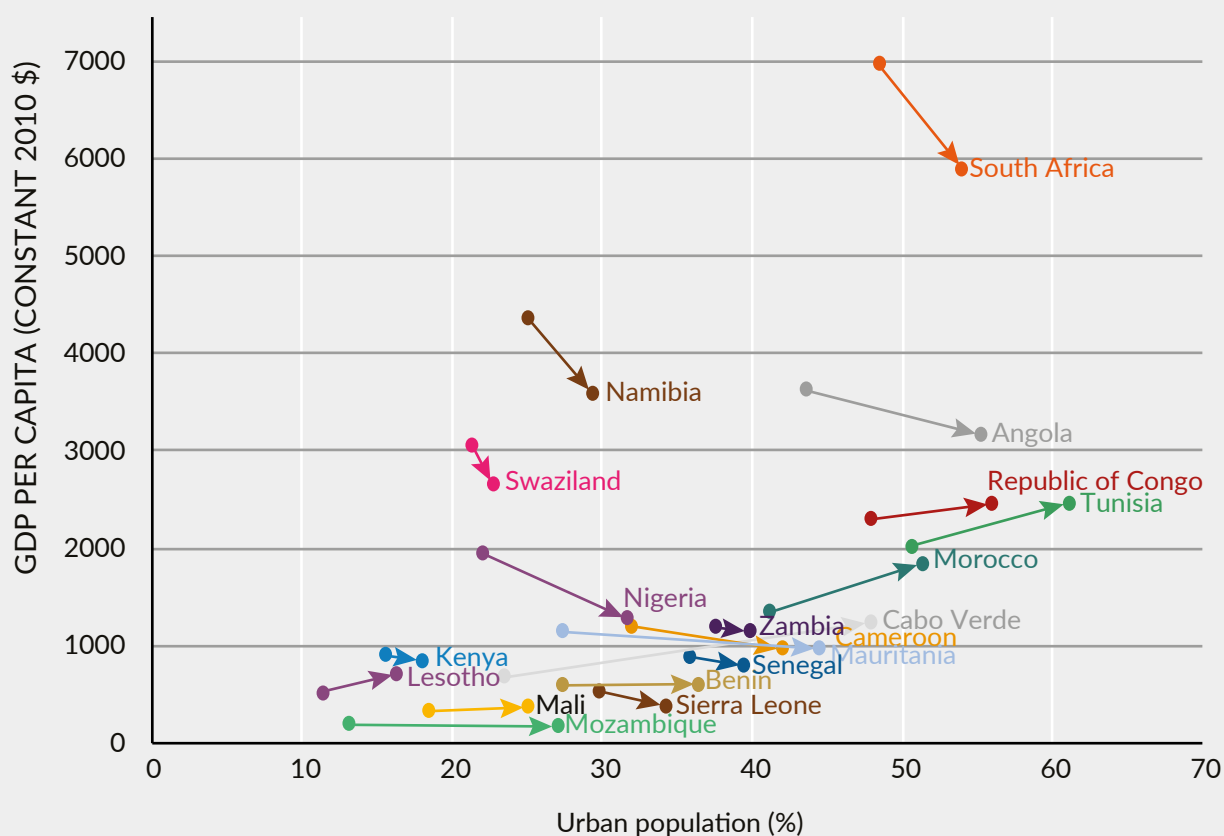
The relationship between urbanization and income appears generally weaker in Africa than in other parts of the world, generating a narrative of “urbanization without growth” (World Bank, 2001; Fay and Opal, 2000). That Africa’s urban development is different is highlighted by a comparison with Asia, 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);

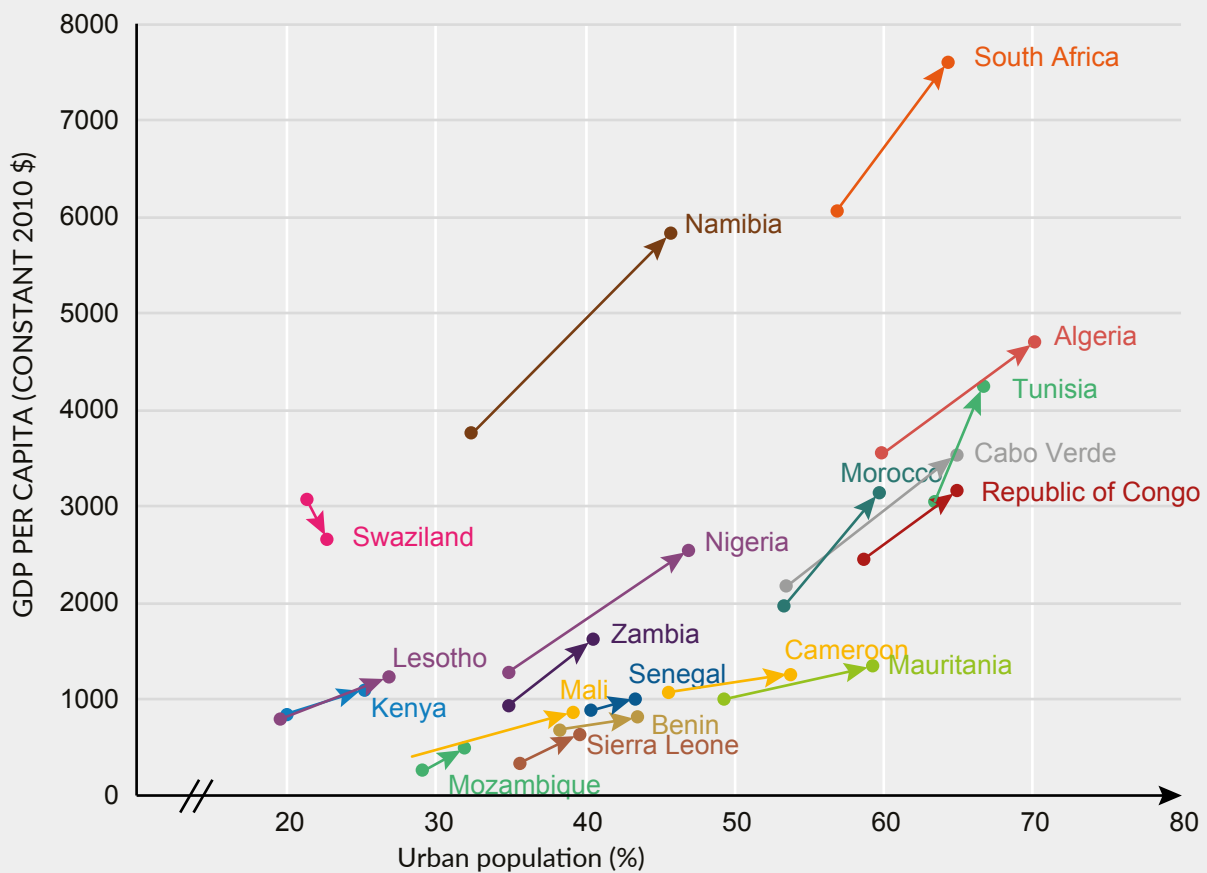
Since 2000, growth and income have rebounded in many of the same countries, reviving the link between urbanization and income.

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

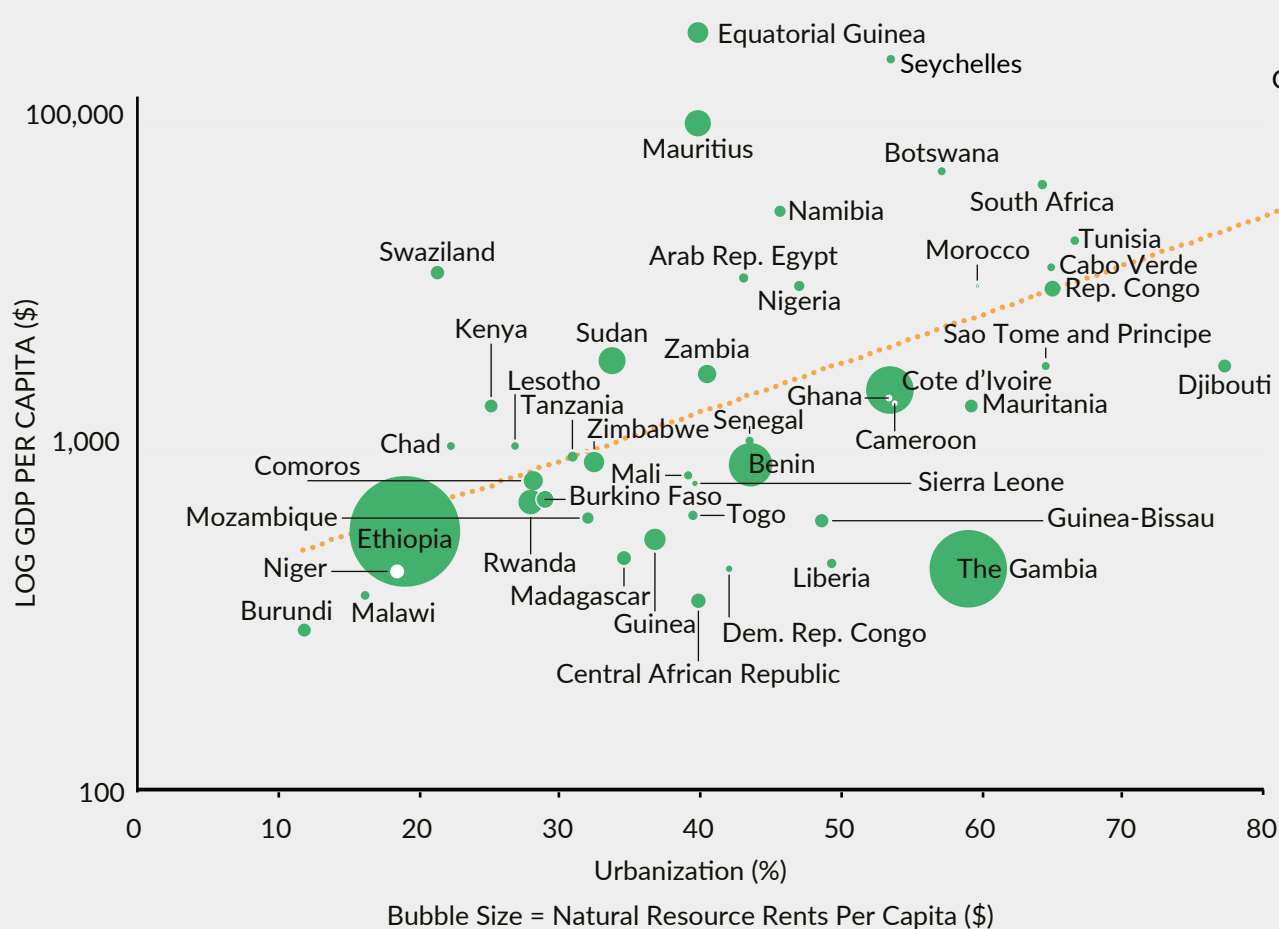
Failure to achieve growth-enhancing structural transformation is particularly common among countries with high natural resource exports. “There is a very strong and negative association between a country’s reliance on primary products and the rate at which structural transformation contributes to growth. 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.

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

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).

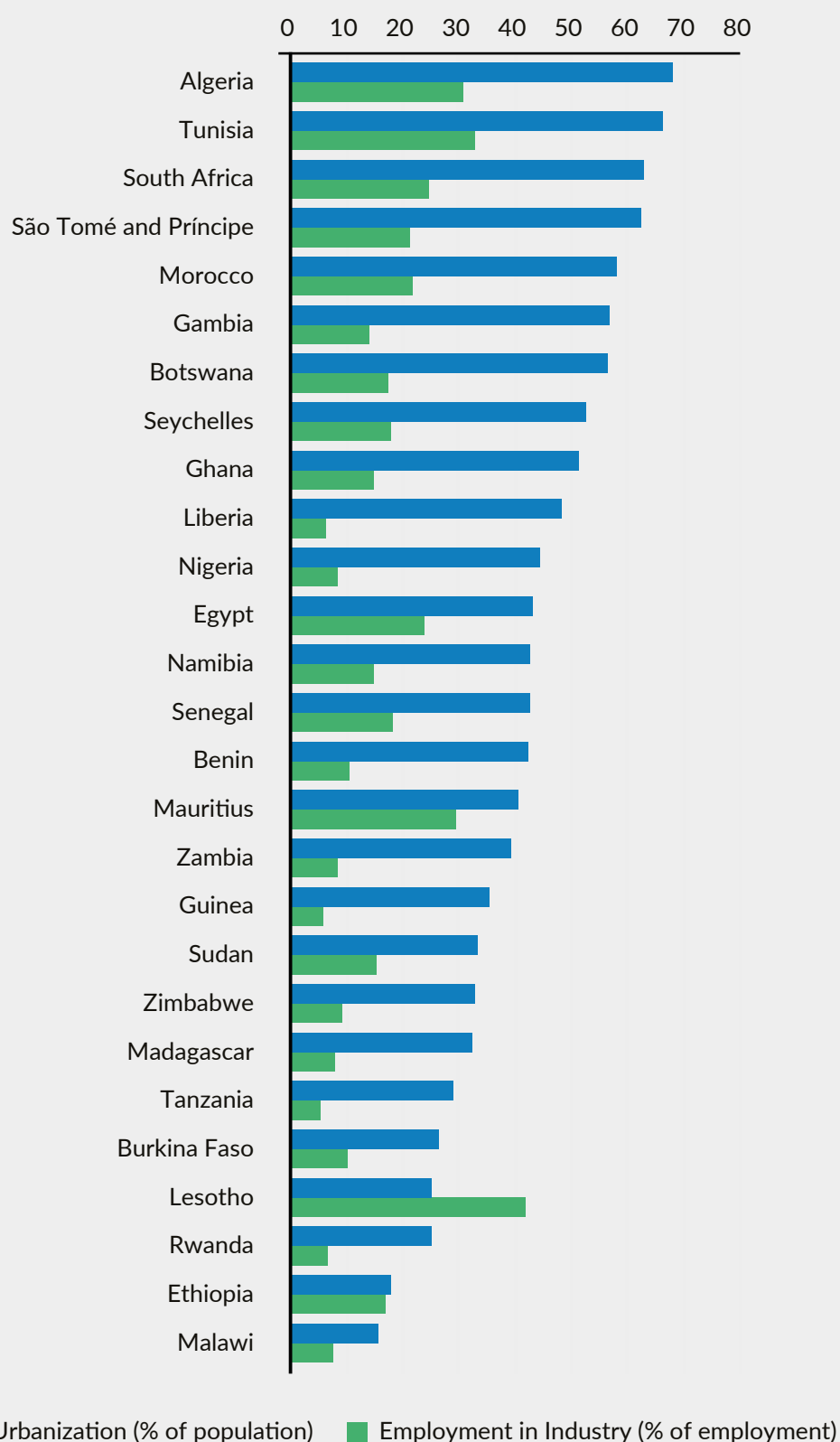
The decent work deficit in Africa is tied to weak industrial development and employment (figure 3.9), particularly in manufacturing. Worldwide the share of paid employment in the total population tends to be positively associated with industrial employment, but at 10 per cent in Africa, the share of 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).

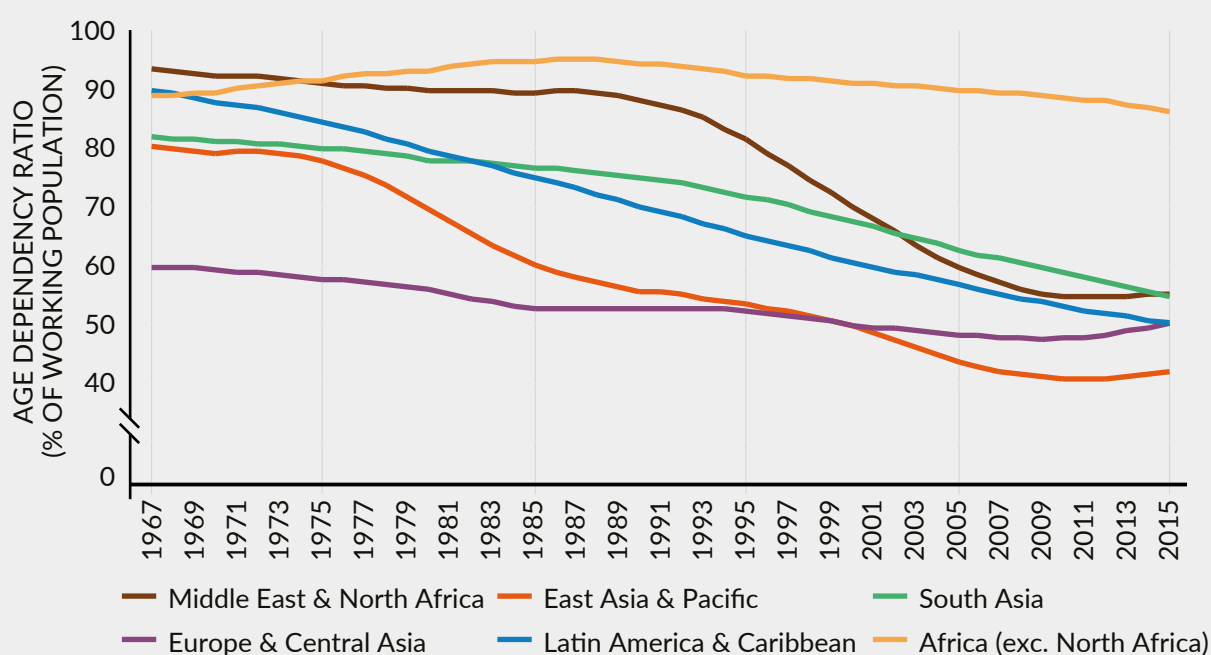
YOUTH

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

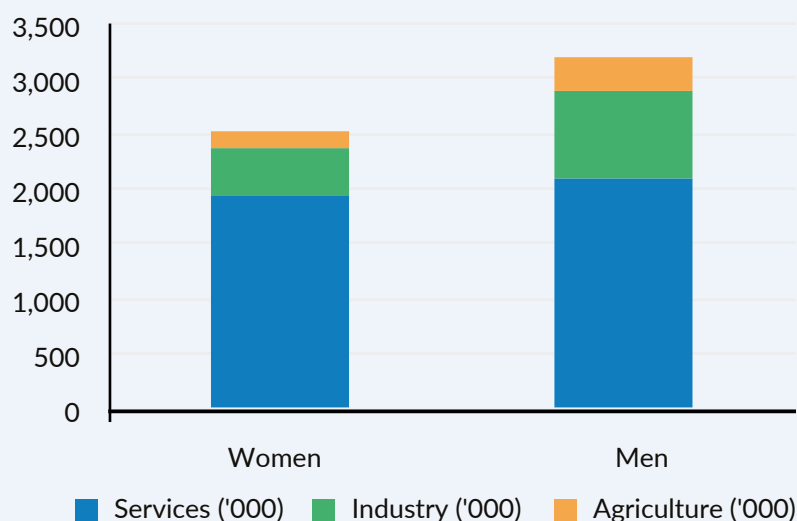


Source: World Development Indicators.

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).

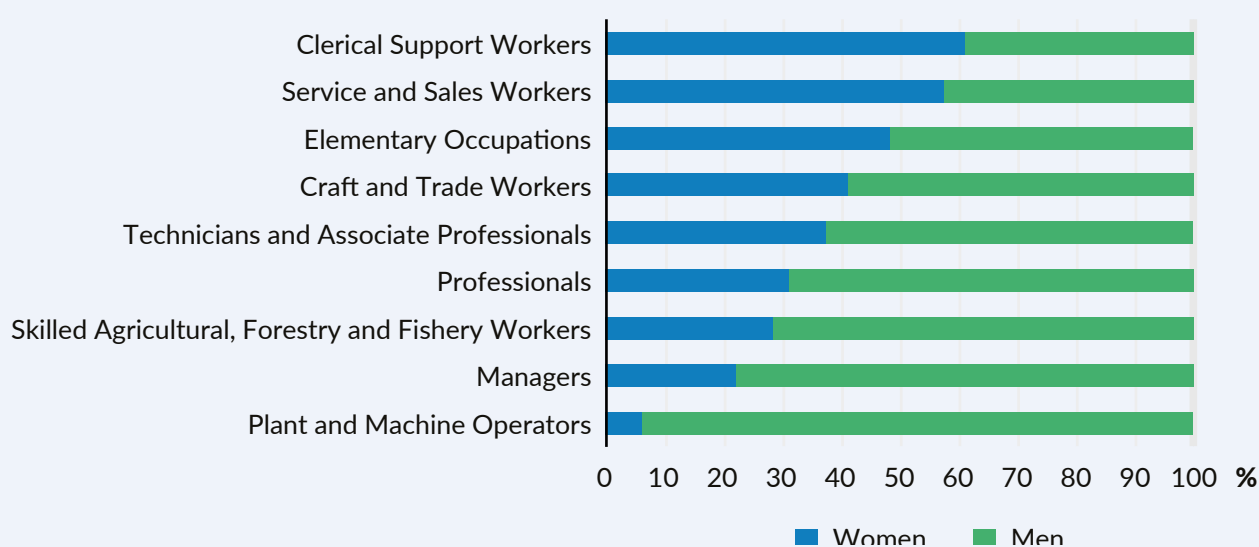
BOX FIGURE 3.1 Sector employment by gender, Ethiopia, urban areas, 2012



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.

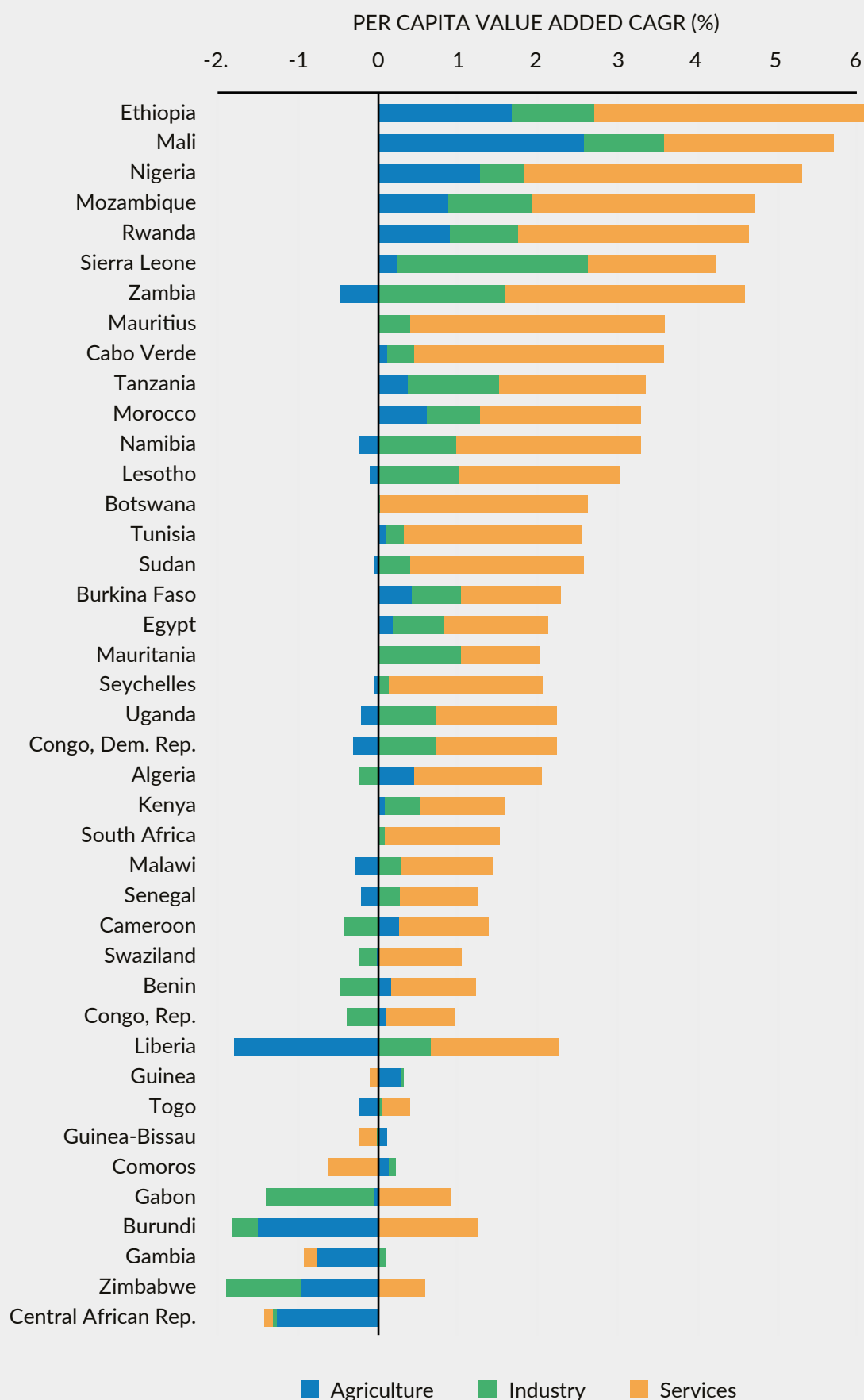
3.9 REASONS FOR OPTIMISM

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.

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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).

4 THE URBANIZATION-INDUSTRIALIZATION NEXUS



Urbanization influences industrial development in multiple ways.¹ Growing middle-class consumption is largely urban based. As income grows, discretionary spending increases and consumption patterns change, generating demand for manufacturing goods and urban construction and thus opportunities for industry.

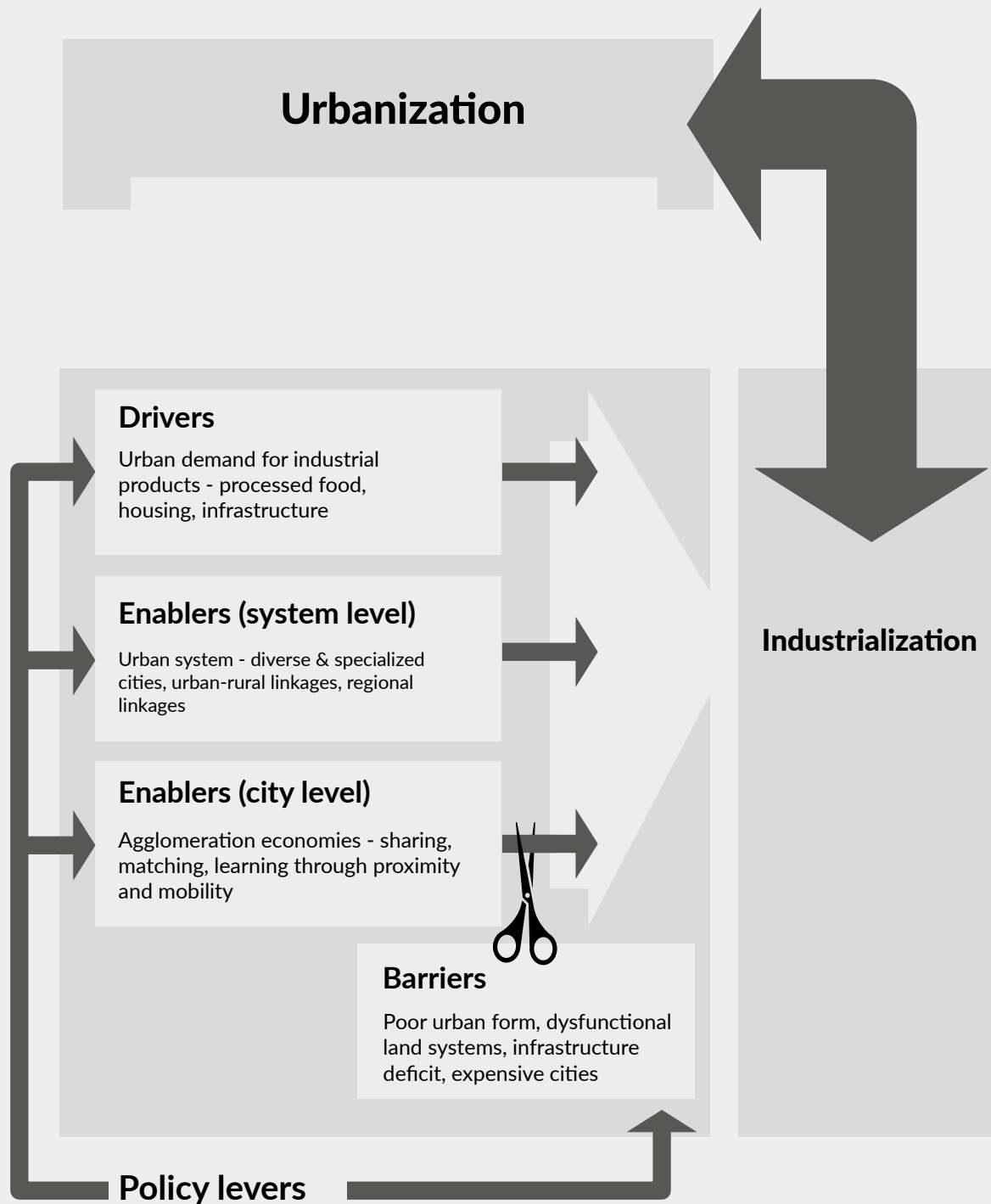
The nature of industrialization is characterized by the locations where industrial activities occur. Firms can benefit from a diverse system of cities where various industrial subsectors can match their locational preferences on access to labour, markets, inputs and knowledge.

Making cities and urban systems productive and tapping the urban advantages for industrial development require policy levers and implementation instruments at national and local levels, and investments in them.

Agglomeration's benefits rise with city size, but so do the costs of agglomeration. The net gains relate to city size in an inverted-U shape, increasing up to a point and then beginning to decline. Managing these relationships to prevent a premature decline in net benefits is essential to sustain productivity and growth, both within cities and in the wider urban system. The key is understanding and promoting the enabling forces behind agglomeration economies, and mitigating and preventing the barriers that undermine them. Among the enablers are good urban form, functional land markets, efficient transport and access to such services as electricity.

Making cities and urban systems productive and tapping the urban advantages for industrial development require policy levers and implementation instruments at national and local levels, and investments in them. As Africa will in the coming years approach the tipping point of 50 per cent urbanization, national and local governments have to make hard choices on the scale and type of investments they need to make—and on the spatial pattern and urban form they want to achieve. These are partly determined by the national development vision, industrial priorities and their spatial implications. Fostering the linkages between

FIGURE 4.1 The urbanization–industrialization nexus



Source: Authors.

urbanization and industrial development therefore require coordination at policy and implementation levels, within the framework of national development planning.

Drawing on the literature and empirical studies, this chapter introduces the key concepts and principles underlying the nexus between urbanization and

industrial development. It is organized as a framework of drivers, enablers (at the levels of the national system of cities and within cities), barriers and policy levers (figure 4.1 and box 4.1). The aim is to provide a theoretical basis and analytical framework for the examples from country case studies in chapter 5.²

Fostering the linkages between urbanization and industrial development require coordination at policy and implementation levels, within the framework of national development planning.

BOX 4.1 DRIVERS, ENABLERS, BARRIERS AND LEVERS

Drivers

- Trends in urban consumption and investment can serve as drivers of industrialization under the right policy framework.

Enablers

- Systems of cities at the national and regional level, if well-structured, can be enablers of industrial activity. Cities themselves can be enablers of industrial productivity due to agglomeration economies.

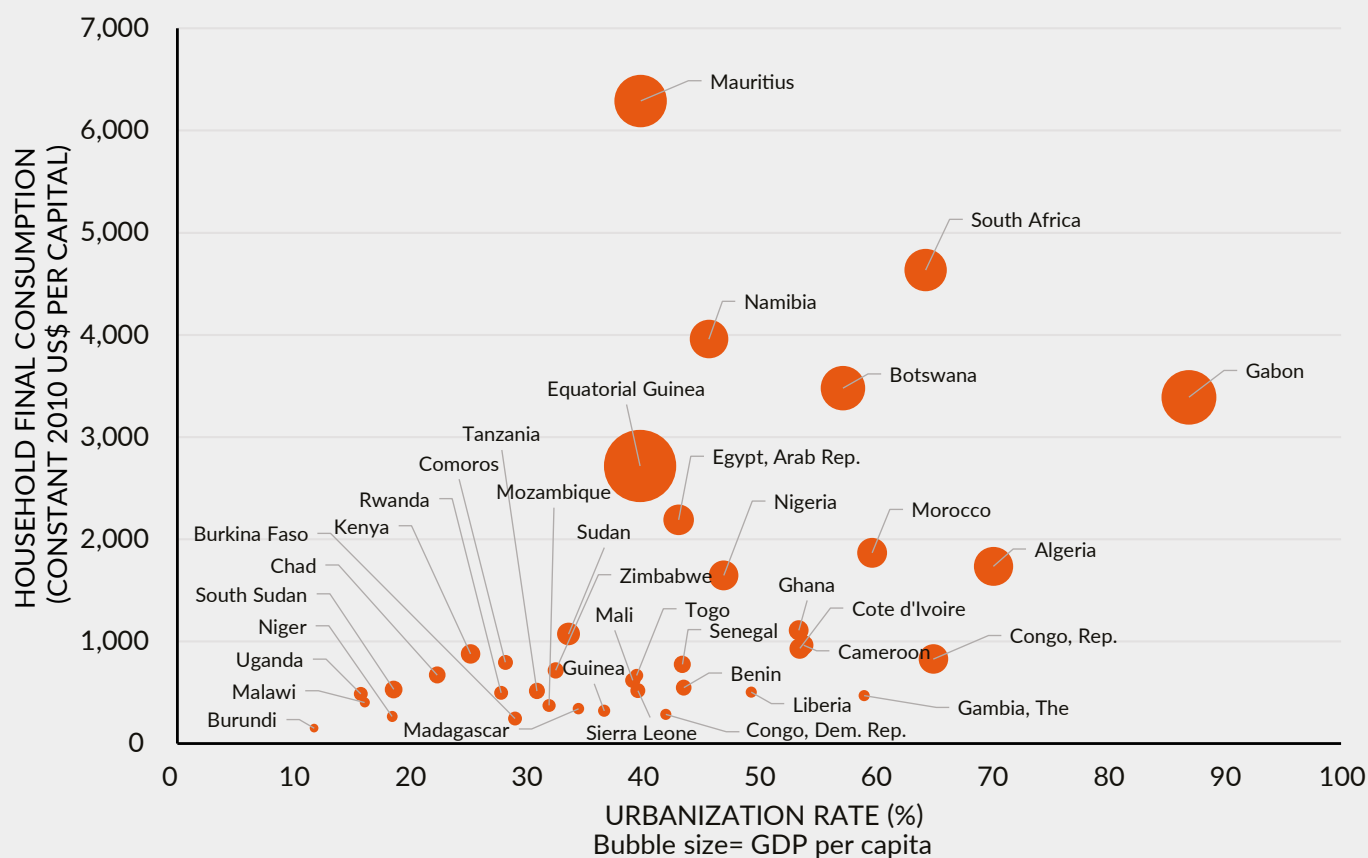
Barriers

- African cities face many barriers to industrial success.

Levers

- Policies can serve as levers to leverage the benefits of urbanization for industrial growth.

FIGURE 4.2 Urbanization, household final consumption expenditure and GDP per capita, selected African countries, 2014



Source: Analysis by authors based on World Bank Development Indicators data.

4.1 DRIVERS: URBAN DEMAND AND SHIFTING PATTERNS OF CONSUMPTION

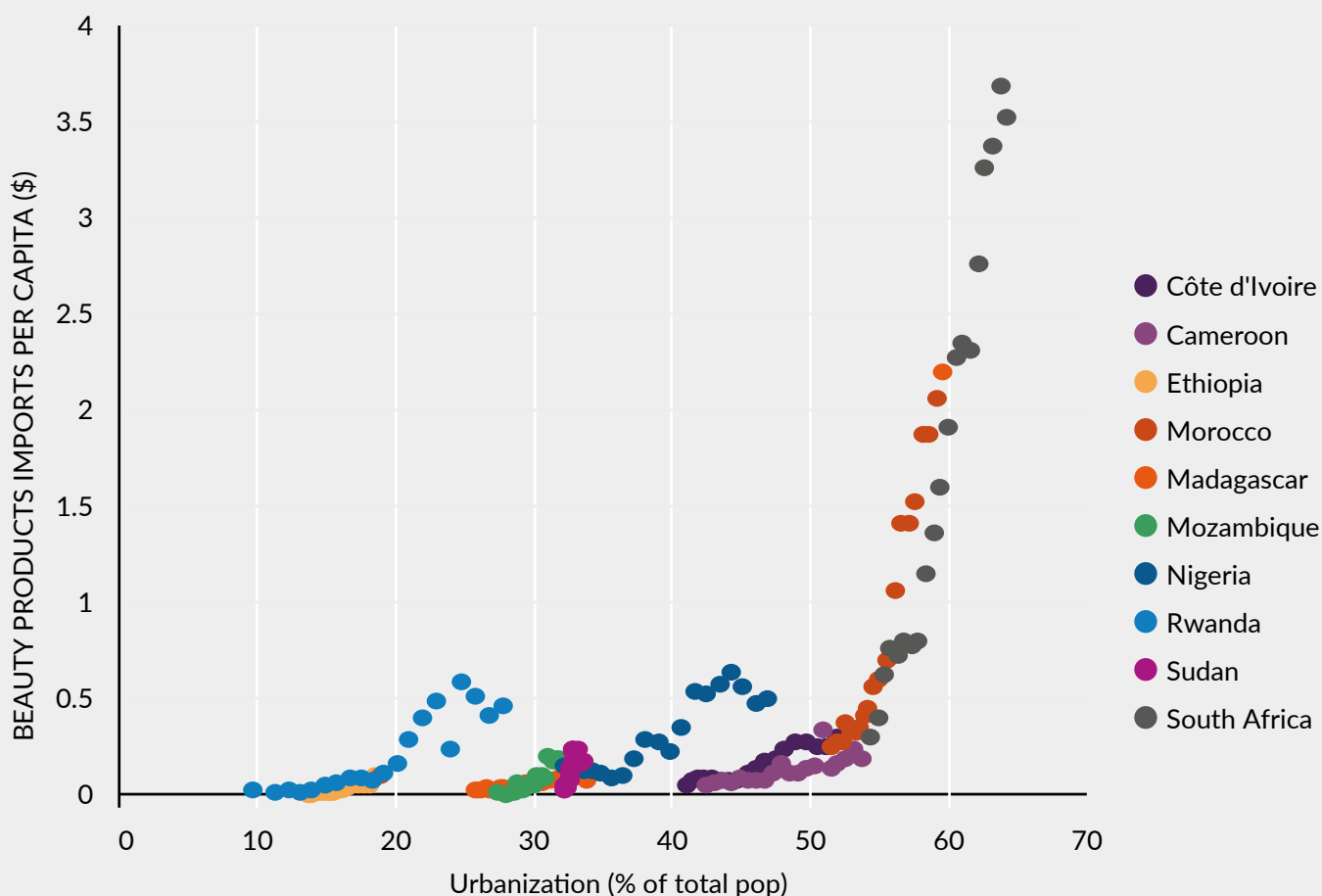
Urbanization presents a major opportunity for industrialization through rising urban demand and shifting patterns of consumption. As Africa urbanizes, the purchasing power of the middle class is growing.³ The power of Africa's growing consumer class can be leveraged to stimulate industrial development to meet rising demand domestically and regionally as a stepping stone to broader global integration.

Urban preferences are shaping the consumer market, given the strong correlation between urbanization and final household consumption expenditure (figure 4.2). While this relationship is not independent of per capita GDP growth, some categories of consumption are associated with urbanization, independent of total income. For example, urbanization is independently and strongly

associated with increased imports of beauty products (figure 4.3), infant food and artificial sweeteners. These categories are useful because fixed-effects models using panel data for African countries over 1995–2014 show that urbanization (percentage of population in urban areas) is significantly related to imports of beauty products ($p < 0.001$), infant food ($p < 0.001$) and “other” sweeteners ($p < 0.01$), after controlling for GDP per capita.⁴

Rising consumer demand presents an opening for shifting into job-rich industrial, manufacturing and tradeable services. PricewaterhouseCoopers, for example, argues that the most strategic investment opportunities in Africa can be found in long-term supply to the growing middle class,⁵ rather than natural resources (PricewaterhouseCoopers, 2015). There is broad consensus in international

FIGURE 4.3 Urbanization and imports of beauty products, selected countries, 1995–2014



Source: Author analysis based on UN Comtrade Database and World Development Indicators.

TABLE 4.1 FDI projects in Africa, top 10 sectors, 2007–2013 (% of total projects)

	PROJECTS	VALUE	JOBS CREATED
Financial services	17.5	2.1	2.7
Telecommunication media technology	16.3	8.7	7.5
Retail consumer products	13.9	4.8	16.8
Business services	9.2	1.0	1.9
Real estate, hospitality and construction	8.6	22.9	19.2
Mining and metals	6.6	14.2	21.2
Coal, oil and natural gas	5.5	31.8	5.3
Transport and logistics	4.9	2.3	2.0
Diversified industrial products	4.8	1.3	3.5
Automotive	4.1	2.7	11.9

Source: Ernst & Young (2014).

investment circles that the rise of African cities creates major opportunities for business (Boston Consulting Group, 2014; PricewaterhouseCoopers, 2015; Deloitte and Touche, 2013; Euromonitor International, 2016). These include consumables, financial services, information and communications technology (ICT), health services and property. There is already a surge in investment in retailing by foreign and domestic sources, and the growth is expected to continue. For example, in Eastern and Southern Africa supermarkets account for 10 per cent of the retail market, it is estimated they will grow to 30–50 per cent by 2040 (Tschirley et al., 2013; 2014).

The trend in foreign direct investment (FDI) also suggests the growing importance of consumption sectors in Africa. In 2007–2013 retail consumer products were the third highest by number of FDI

projects and job creation, while the real estate, hospitality and construction sector ranked the second highest (after coal, oil and natural gas) by value and job creation (table 4.1).

Opportunities abound to expand the role of domestic firms in existing industrial value chains, particularly those in commodities (see the Economic Report on Africa 2013). Better integrated value chains can create urban–rural linkages that foster balanced development, as well as tying job creation in urban-based services (including transport, finance and communications) to areas of existing comparative advantage (such as minerals and agriculture). Identifying value-added openings along the value chain has spatial implications. Clusters and locations of comparative advantage must be mapped and supported with soft and hard infrastructure specific to the sectors or activities in the value chain. Cities and locations along the chain have to be connected to ensure efficient flow of production factors, intermediate inputs and final products to the market.

Some of the opportunities arising from urban growth in the food value chain, housing and infrastructure construction, and business services are now presented.

Urbanization presents a major opportunity for industrialization through rising urban demand and shifting patterns of consumption.

FOOD VALUE CHAIN AND RURAL-URBAN LINKAGES

Urbanization is not merely associated with an increase in consumption—it is also linked to changing patterns of consumption, such as those for food. With increasing shares of the urban population graduating to middle class status, the share of food in household budgets decreases, but demand shifts to protein-rich and processed food. The entry of women into the formal and informal labour market also means increased demand for time-saving processed food, generating demand for food manufacturing and further expansion of the food retail trade. Africa's imports of processed foods are rising (figure 4.4), revealing areas that could instead be met by domestic production.

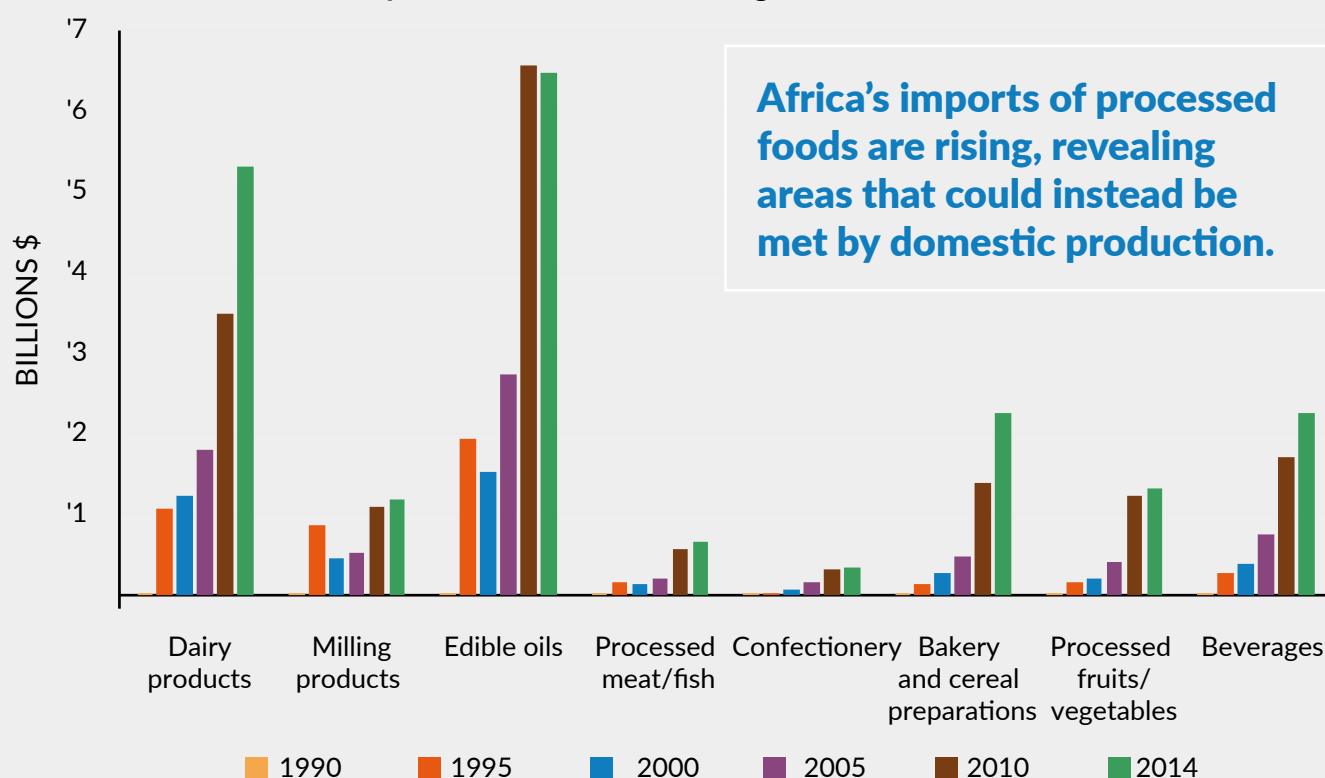
Wholesale, trucking, processing and storage—predominately carried out by small and medium-sized enterprises and the informal sector—present major opportunities, as the spread of supermarkets provides openings for greater value added. The emergence of these economic activities has gone under the radar of policy makers (the “quiet revolution”) and represent the “missing middle” of policy focus. Critical to African economic competitiveness, they underline the need to improve

infrastructure and the business climate (Reardon et al., 2013). Support for such enterprises, as well as a path to formalization for informal operators, would strengthen the entire rural-urban value chain.

Major food retailers, including global food industry leaders and emerging domestic investors, will have leading roles in vertically integrating the segment and increasing the share of local content in food supermarkets. Their power is huge. For example, around 200 supermarkets and 10 hypermarkets sell the equivalent of 90,000 small shops and account for up to 30 per cent of Kenya's food retail market (UNDP, 2012). Knowledge sharing between lead firms and suppliers will be important for upgrading Africa's food production and its ability to compete in global markets (UNECA, 2013).

Policy is also important in establishing links between farmers and retailers. Contract farming is becoming more common, but in many places small farmers face barriers to entry. Agricultural production for processed and formally marketed food is highly concentrated. A secure institutional framework is critical to keep transaction costs low, lower barriers to entry, and provide certainty on the ties between farmers and agri-businesses (Sautier et al., 2006).

FIGURE 4.4 Africa's import of selected food categories



Source: UN Comtrade database.

HOUSING AND INFRASTRUCTURE CONSTRUCTION

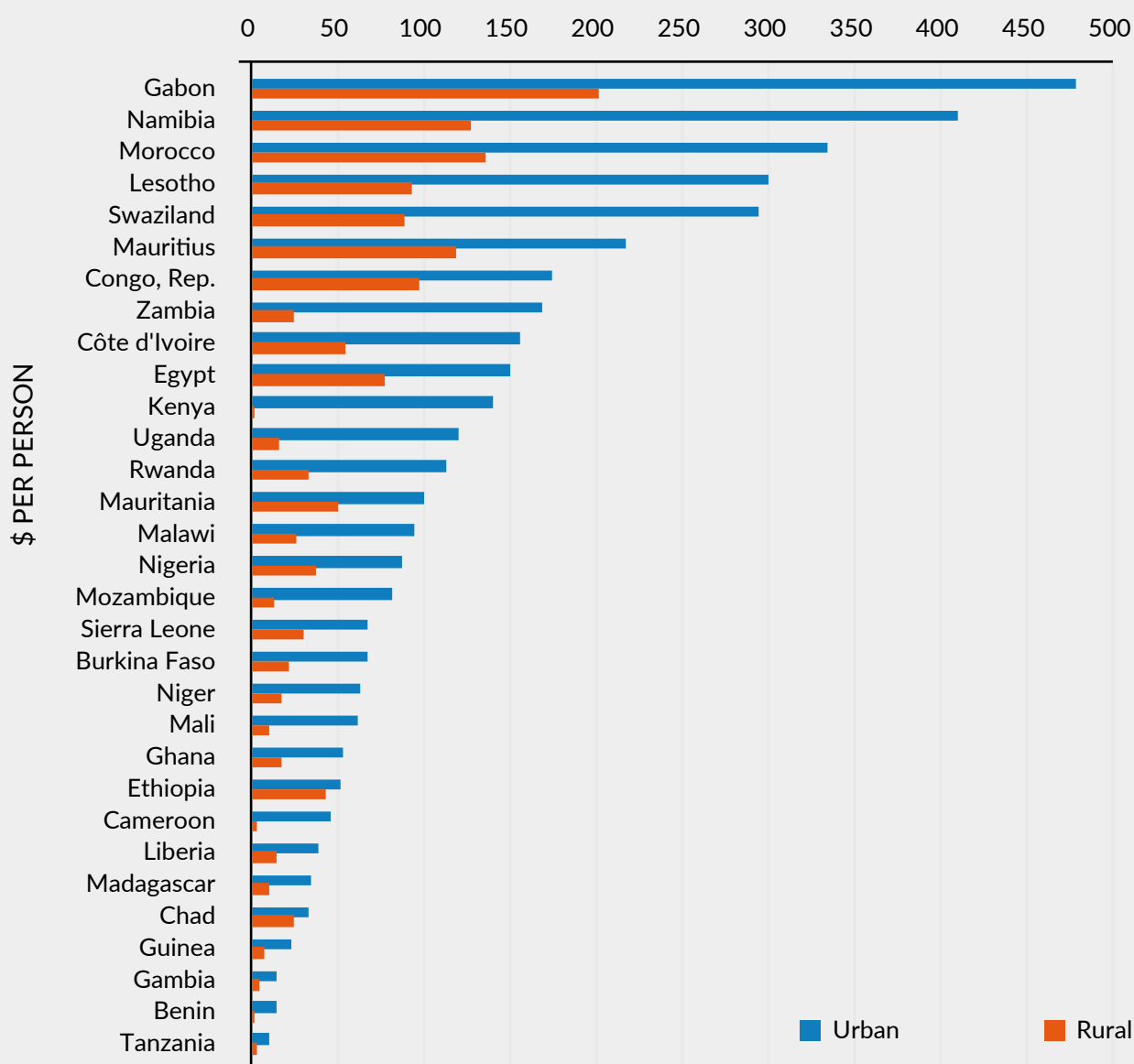
Growth in construction, particularly for housing and urban infrastructure, reflects rising urban demand. Housing is a major source of wealth creation and savings, with investments accounting for 6 per cent of GDP, and for each house built, five jobs can be created (World Bank, 2015). Housing, through backward linkages, can encourage construction industries to form, including basic industries such as cement and steel. With the expanding housing and construction sector and sophistication of the real estate market, there will be good prospects to develop industry further by upgrading skills,

Growth in construction, particularly for housing and urban infrastructure, reflects rising urban demand.

developing design, contracting and consulting capacities.

African per capita spending on housing in urban areas is consistently higher than in rural areas (figure 4.5), pointing to growing opportunities.

FIGURE 4.5 Urban and rural expenditure on housing, 2010, selected African countries



Source: Based on Centre for Affordable Housing Finance in Africa; World Development Indicators.

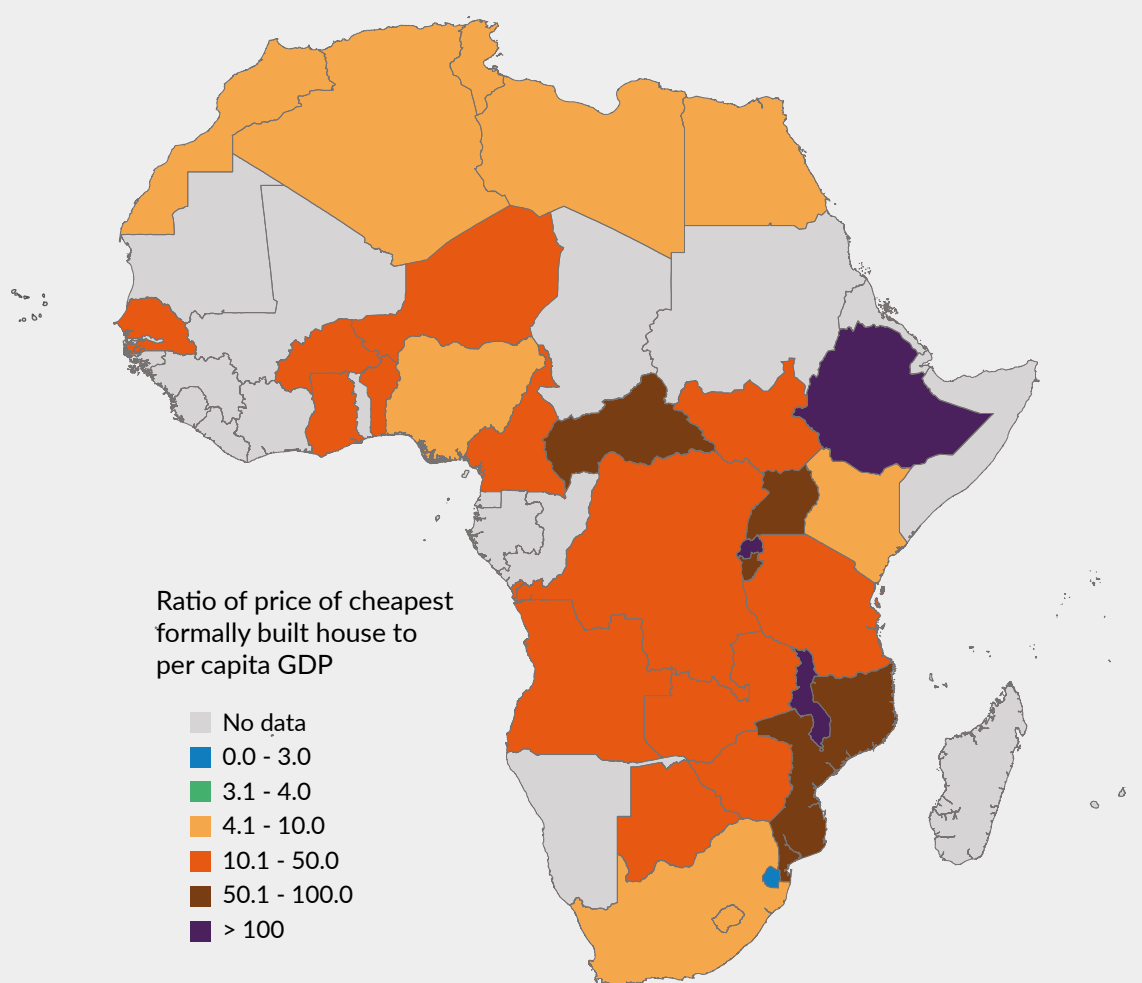
Note: The ratio compares a housing price below the median and an income above the median (implying that the picture is worse than depicted).

But for the construction sector to respond to the large and growing demand for urban housing, the right institutional factors must be in place. UN-Habitat (2010a) defines seven: authorizations, land, infrastructure and municipal services, public facilities and community services, labour force, building materials and finance. Strategies to expand housing and construction employment should focus on reforming regulatory barriers and supporting education and training, particularly for women and youth.

The sector is struggling in many countries: numerous institutional problems ensure an inefficient supply chain and expensive housing units, highlighting

the need to remove regulatory barriers. Housing is 55 per cent more expensive in urban Africa than in other developing countries' urban areas (Dasgupta, Lall and Lozano-Gracia, 2014). The typical house price to income ratio globally ranges between 3:1 and 5:1, but often in Africa, even for public service employees whose average income is higher than the majority's, the ratio goes above 10:1, which is far above the 4:1 threshold that development practitioners suggest signals a serious problem with housing supply (Bertaud, 2015). The cheapest formally built housing, too, is much higher in Africa on the house price to income ratio than in other developing regions (figure 4.6).

FIGURE 4.6 Ratio of cheapest formally built house price to GDP per capita, 2013



Source: Based on Global Consumption Database.

The level and growth of per capita GDP will be major contributors to upgrading urban housing supplies. Middle-class households tend to own their own homes and reside in bigger and more permanent housing, equipped with modern durable goods. In Algeria, Morocco, South Africa and Tunisia more than 60 per cent of households own their homes, in part a reflection of the rise of the middle class (Ncube, Lufumpa and Kayizzi-Mugerwa, 2011). The quality of their housing also tends to be better, with more solidly built roofs, walls and floors, and less

Africa is poised to see a major expansion of the urban housing market, if it puts the right enabling factors in place, and this expansion should be leveraged for industrialization through development of the construction and building materials value chains.

At the same time governments should actively address the persistent formal housing gap for families who will not enter the middle class in the coming decades. Such programs can be directly tied to industrialization policies, as in Ethiopia (chapter 5). Similarly, the investment in housing that North African countries like Morocco and Tunisia have made since the 1990s is reflected in impressive changes in housing conditions. In Morocco the share of the urban population living in slums fell from 37 per cent in 1990 to 13 per cent in 2005.

Africa's urban housing deficit is accompanied by a huge infrastructure deficit (see "Urban infrastructure" in section 4.4). Africa lags behind the rest of the world in access to electricity, Internet penetration and access to improved water, and has large road maintenance needs, all with subregional differences. West Africa has lower road density and road quality than other regions; North Africa has a

Governments should actively address the persistent formal housing gap for families who will not enter the middle class in the coming decades. Such programs can be directly tied to industrialization policies.

overcrowding (Lozano-Garcia and Young, 2014). This link between GDP and formal housing expenditure, paired with trends in urbanization, suggests that

TABLE 4.2 Infrastructure: Electricity, Internet, water and roads by global regional groupings

		ACCESS TO ELECTRICITY (% OF POPULATION) 2012	SECURE INTERNET SERVERS (PER 1 MILLION PEOPLE) 2015	IMPROVED WATER SOURCE, URBAN (% OF URBAN POPULATION WITH ACCESS) 2015	CLASSIFIED PAVED ROAD NETWORK IN GOOD CONDITION (% OF CLASSIFIED PAVED NETWORK)
Africa	Central	46.9	4.7	88.7	58.7
	East	31.1	42.8	85.6	49.0
	North	79.2	4.9	88.3	Not available
	Southern	43.5	35.6	92.7	47.8
	West	41.1	6.2	92.2	43.2
Elsewhere	East Asia and Pacific	96.1	143.0	97.3	Paved roads: last available 2010–2014
	European Union	100.0	965.3	99.9	
	Latin America and Caribbean	96.4	56.6	97.4	
	North America	100.0	1,616.7	99.5	
	South Asia	78.0	5.8	95.3	
World		84.6	208.7	96.5	

Source: Based on World Development Indicators; Africa Infrastructure Country Diagnostic; International Road Federation.

The link between GDP and formal housing expenditure, paired with trends in urbanization, suggests that Africa is poised to see a major expansion of the urban housing market, if it puts the right enabling factors in place.

higher prevalence of paved roads and better access to electricity; East and Southern Africa do best on Internet servers (table 4.2).

The annual financing requirement for infrastructure investment in Africa excluding North Africa is estimated at \$93 billion (Gutman, Sy and Chattopadhyay, 2015), but this covers rural and urban areas. With rapid urbanization and growing cities, countries will need to simultaneously catch up with the backlog, invest for the growing population and spend on maintenance.

In the last two decades the region has seen significant growth in infrastructure investment, with an

increasing share of private sector finance relative to official development assistance, including growing investment by China. Still, 65 per cent of the total comes from public budgets, representing 4 per cent of GDP. This might be lower than the 5–6 per cent of GDP advocated by development practitioners, but countries such as Angola, Cabo Verde and Lesotho are investing more than 8 per cent of GDP (Gutman, Sy and Chattopadhyay, 2015).

As Africa invests in urban infrastructure to catch up with its needs, with the help of global commitments by donor countries to the Sustainable Development Goals and the New Urban Agenda,⁶ it should aim to develop the domestic construction sector and support services. Job creation, particularly for women and youth, should be a component of funded development projects. Some have questioned the dual goal of job creation via infrastructure investment, saying that domestic procurement policies may delay delivery or reduce quality (Altbeker, McKeown and Bernstein, 2012). And many emerging sectors will need government support to deliver at required standards, particularly informal and small enterprises, and such support should be paired with procurement targets.

		CLASSIFIED ROAD NETWORK DENSITY, PER LAND AREA (KM/1,000 SQ KM)	CLASSIFIED ROAD NETWORK DENSITY, PER POPULATION (KM/1,000 PERSONS)	PAVED ROADS (% OF TOTAL)
Africa	Central	36.5	2.1	23.0
	East	127.9	1.2	29.5
	North	71.2		
	Southern	99.8	5.5	35.4
	West	83.7	2.3	18.3
Elsewhere	East Asia and Pacific	Other road data: last available 2001–2008		
	European Union			
	Latin America and Caribbean			
	North America			
	South Asia			
World				

BUSINESS SERVICES

The service sector provides openings tied to cities and industrial development. Business services tend to cluster in cities, where they can tap pools of skilled labour and share knowledge. These tradeable services, including finance, insurance, real estate, accounting, ICTs and other business services, have a dual role in linking urbanization to growth. They are vital to industrial productivity, particularly manufacturing and construction, and they are a pathway to structural transformation and economic growth. With urban development that is well ordered and supported, industry and business services can thrive together, given the positive associations between employment in business

Business services are vital to industrial productivity particularly manufacturing and construction, and they are a pathway to structural transformation and economic growth.

services and in construction, and in value added between these sectors (figures 4.7 and 4.8).

Beyond supporting the productivity and growth of industry, tradeable business services have the potential for creating jobs and boosting economic growth (Puga, 2010; Rodrik, 2015).⁷ With backward linkages they can increase the job-creating potential of industry (Altbeker, McKeown and Bernstein, 2012).

IMPORTANCE OF POLICY SUPPORT

In three areas—the food value chain, business services and housing and infrastructure construction—domestic firms will probably be unable to respond to urban demand without policy support, including an enabling regulatory framework, opportunities for training and skill building, and prioritization of infrastructure that supports domestic firms and value chains. A conducive policy environment and targeted support are needed to promote these sectors and associated value chains, including direct engagement with firms to build capacity, upgrade informal activities and assist women and youth in broadening their participation in urban economic activities—creating, in theory, a virtuous circle of domestic urban employment and demand.⁸

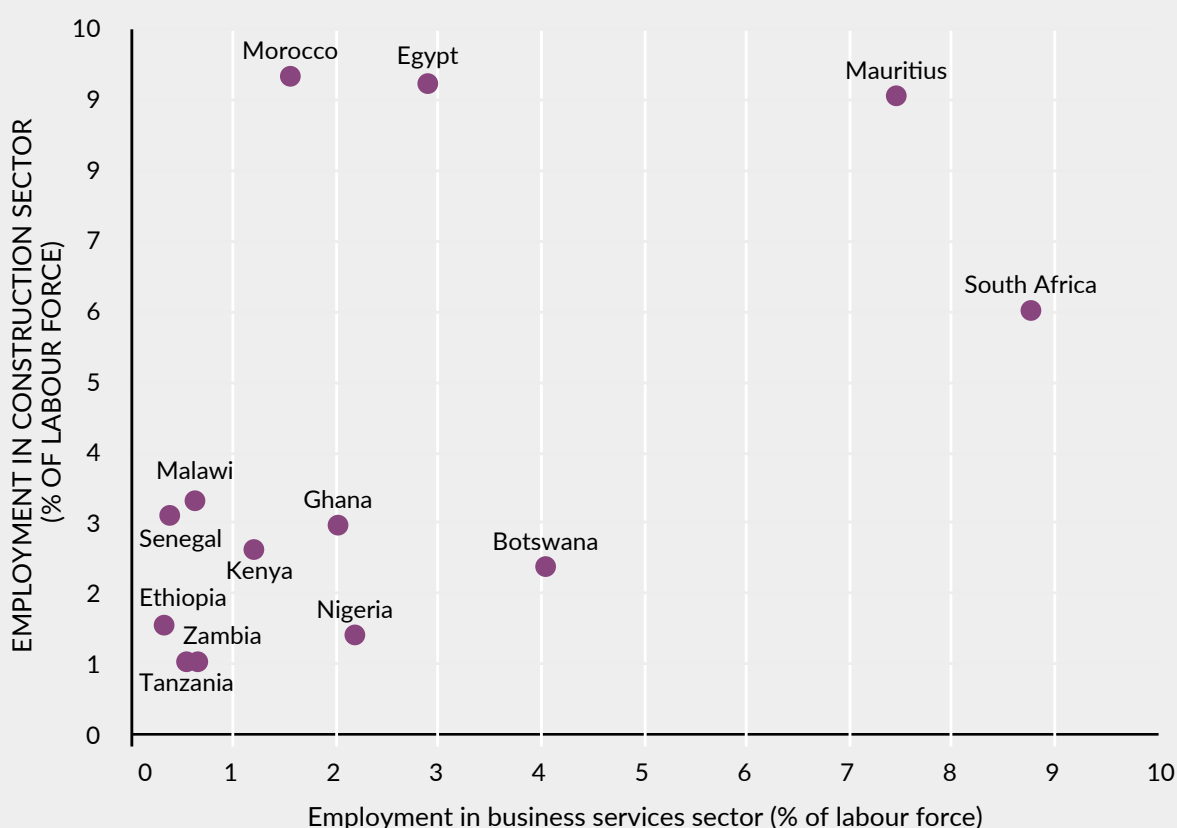
4.2 THE POTENTIAL OF URBAN SYSTEMS TO BE ENABLERS OF INDUSTRIALIZATION

Cities do not exist in a vacuum. The economic contribution of a city and its ability to support industrial development depend on the city's role in the national urban system and its connectivity to regional and even international markets. The location choices of industries and their success in productivity and competitiveness depend on the characteristics of the city and its place in national and international systems of cities—size, diversity of economic activities and proximity and linkages to regional and international markets (box 4.2).

Policy for the urban system is critical for prioritizing investment: countries must focus their limited resources to avoid diluting the impact of investments to a point where they leverage little change. Systems

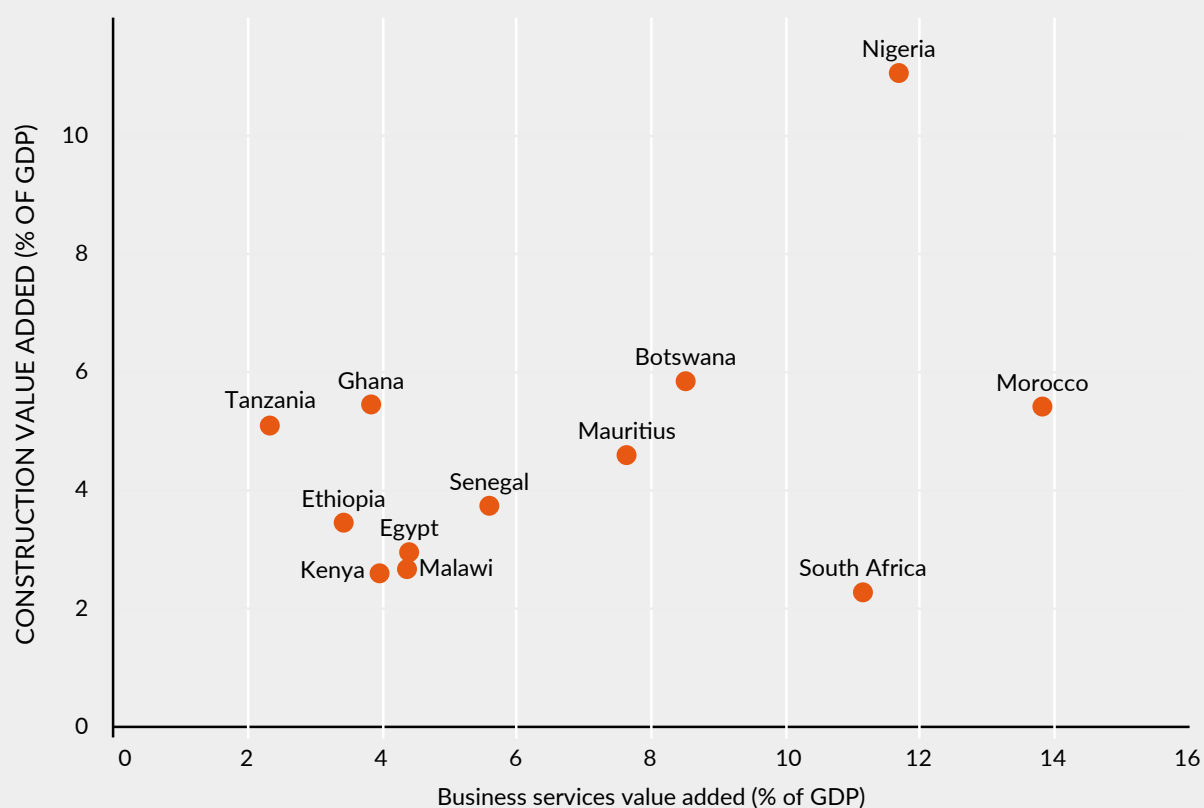
of cities should have an economic logic. While a political logic sometimes shapes the distribution of provincial, state or district administrative public spending, infrastructure and targeted investment attraction policies should focus on a few economically strategic cities and their links, including the primary city, cities along important regional trade corridors, existing industrial and port cities, and cities with links to targeted industrial sectors (including agro-industry and natural resources). Investment should target the value chains at the heart of industrial job creation, including support to skill building within cities, as well as the transport links within and between cities.

FIGURE 4.7 Employment in construction and business services, average 2006–2010, selected African countries



Source: Groningen Growth and Development Centre 10-Sector Database.

FIGURE 4.8 Value added in construction and business services, average 2006–2010, selected African countries



Source: Groningen Growth and Development Centre 10-Sector Database, population, 2006–2015

BOX 4.2 A FUNCTIONAL NATIONAL SYSTEM OF CITIES

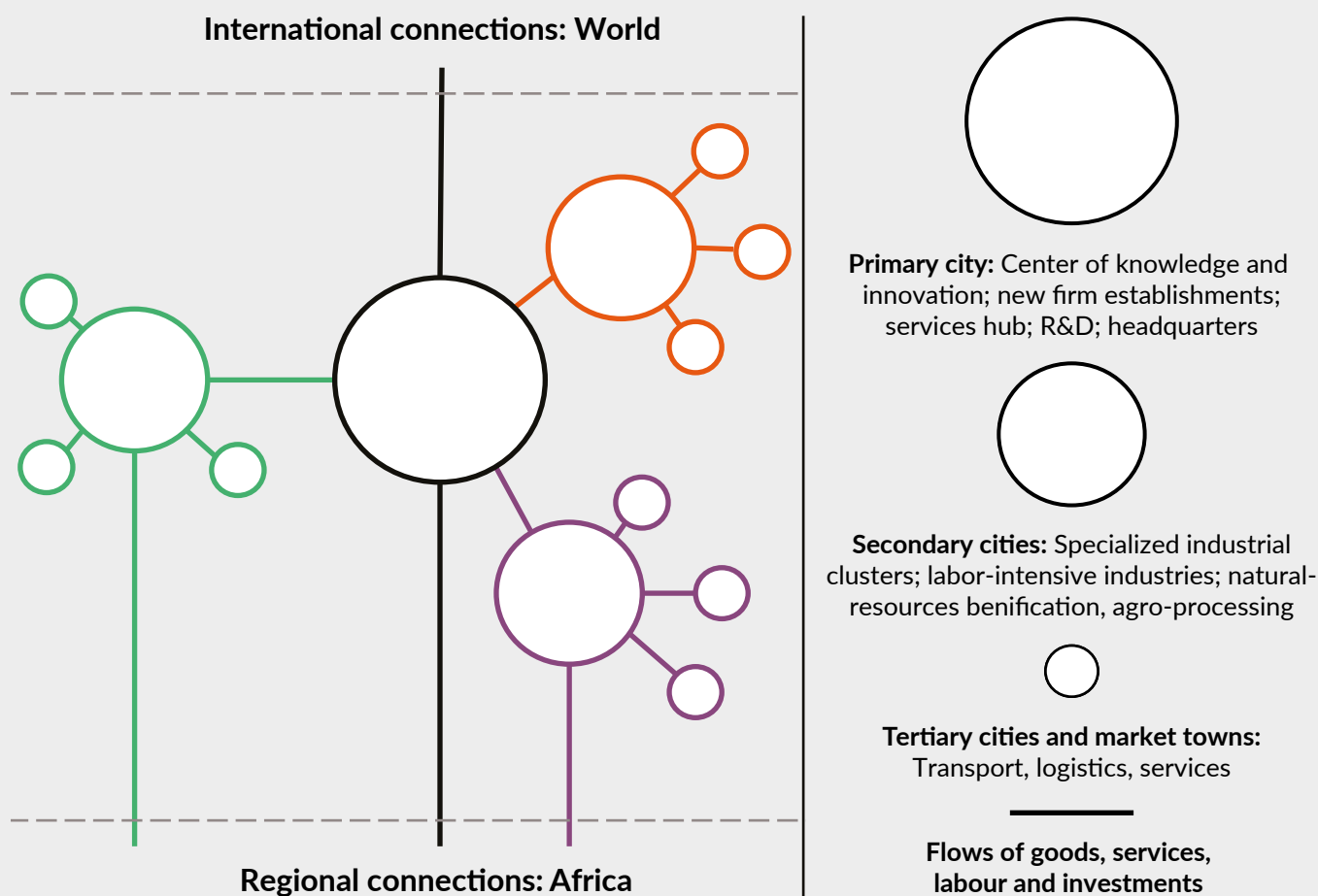
In a functional system of cities each major city (primary and secondary) has a unique and complementary role. The primary city may well have an international outlook, while secondary cities complement it by hosting activities that require the

lower costs associated with smaller size or proximity to inputs such as agriculture or natural resources.

Regional links and corridors influence the division of functions among cities and the inter-city transport networks. Links to international and

regional markets are an important component of such a system, which requires internationally coordinated policies and investments to establish the right supportive environment.

BOX FIGURE 4.1 A connected and complementary system of cities



INDUSTRY LOCATION CHOICE

Theories of industrial location have focused on “first-nature” (naturally occurring) and “second-nature” (arising from human activity) geographical characteristics, highlighting economic geography.

Older theories focused on first-nature differences such as climate, topography and resource endowment, or the abundance of a relatively immobile production factor. For example, distance to markets or to urban centres was the central element of the location model of Von Theonen (1826), of the

central place theories of Christaller (1933) and Losch (1940), and of others who followed in their footsteps (Fujita, Krugman and Venables, 1999). According to Alfred Weber (1909) industries may locate closer to the source of inputs if a product is “weight-losing” (heavier before processing) or closer to markets if the product is “weight-gaining” (heavier or more perishable after processing) (Bogetic and Sanogo, 2005). Trade theories of comparative advantage also discuss location choice: according to the Heckscher-Ohlin model (1933), industries that depend most on a less mobile factor of production may well concentrate in locations endowed with that factor.

More recent theories of industrial location focus on second-nature benefits such as knowledge spillovers, “thick”¹⁰ markets for specialized skills and the backward and forward linkages associated with large local markets. The New Economic Geography model, pioneered by Paul Krugman (1991) and the extensive work that followed, analysed the self-reinforcing nature and process of economies of scale and of spatial clustering. In this model the interaction between economies of scale, transport costs and movements of productive factors influences the spatial concentration of economic activities (Fujita, Krugman and Venables, 1999). Economies of scale in manufacturing and the mobility of labour create and perpetuate agglomeration economies.

In the early periods of global industrial development, first-nature geographical factors were critical in determining industrial location. In the United States and Western Europe industries and cities have long tended to locate around waterways to exploit transport cost advantages. Per Glaeser (2009): “Before the 20th century, the costs advantages of boats were so extreme that the location of all of America’s 20 largest cities from the oldest, like New York and Boston, to the youngest, Minneapolis, was determined by flows of water.” The same is true of the coastal megacities of Asia that came to dominate its economy after World War II, including the Republic of Korea’s Seoul and Pusan regions, Taiwan (China’s) Taipei and Kaohsiung regions, and China’s Yangtze and Pearl River Deltas (Annez and Buckley, 2009). Initial first-nature locational advantages based on transport costs have snowballed into scale-based advantages with the agglomeration of labour and firms (box 4.3).

While first-nature geographical factors remain important, firms in market economies of the globalizing world attach great value to second-nature geographical factors arising from agglomeration economies and the economic benefits of clustering.

CLUSTERING VERSUS DISPERSION, AND SECTOR-SPECIFIC DIFFERENCES

The centrifugal forces of agglomeration pull firms into urban clusters, working against the centripetal forces pushing firms from cities.¹¹ Both sets should be managed to provide high-quality location options for industries and firms. As cities

The centrifugal forces of agglomeration pull firms into urban clusters, working against the centripetal forces pushing firms from cities.

grow, crowding, congestion and demand for scarce resources increase land and labour costs. Firm surveys and econometric studies on China, India and Indonesia summarized in Deichmann et al. (2008; table 4.3) indicate that while location decisions of manufacturing firms depend on a host of factors, including infrastructure, the clustering effect is an important variable for many industries. This is especially true for technology-intensive and high-productivity sectors such as office computing and natural resource-based industries like wood or rubber and plastic. They are less important for footloose industries, such as garments and textiles, which tend to seek inexpensive labour.

Clustering effects come with cost-raising higher wages, increased land rent and higher transport costs caused by congestion, which work to push firms away. The net gains from clustering thus vary by type of industry, making relocation or expansion elsewhere a more frequent choice for sectors with low-skilled labour and standardized technologies (Deichmann et al., 2008). Differing location preferences among firms in three Asian countries are evident in the empirical results summarized in table 4.3.

Manufacturing firms with greater value added show a clear preference for market access (Fedderke and Wollnik, 2007; Rothenburg, 2011). One study of manufacturing firms in India finds that productivity was driven primarily by such access (measured by proximity to domestic population and ports, weighted by travel times) (Lall and Mengistae, 2005). India has a large domestic market, but for coastal cities, foreign market access (distance to port) was more important in determining productivity (Lall and Mengistae, 2005). In Africa FDI has shown a preference for cities and countries with good access to the continent’s domestic markets (Zhang, Wei and Liu, 2013).

Skill-intensive industries and knowledge-based sectors are more prone to clustering and to be based

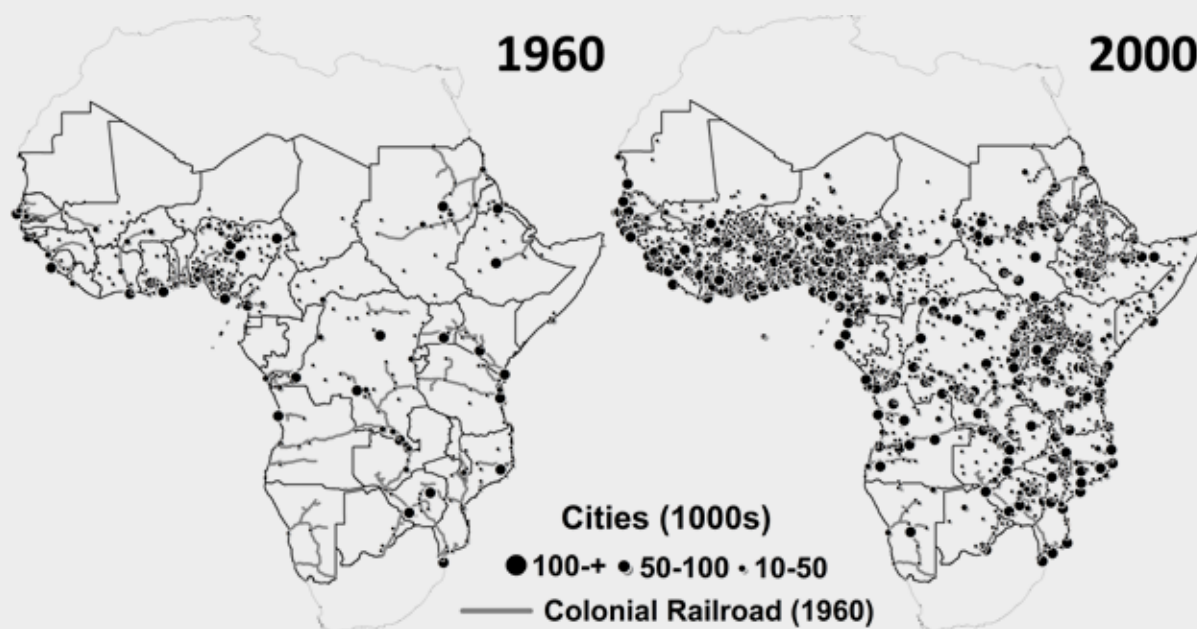
BOX 4.3 FORMATION OF AFRICAN CITIES IN A HISTORICAL CONTEXT

First-nature geographical characteristics—natural resources and transport links—were the main factors in Africa's urban agglomerations before and during the colonial period, including pre-colonial trade cities such as Mombasa, Kenya; Stone Town, Tanzania; and cities along the Nile Valley that sprang up because of these natural advantages. Sudan's pre-colonial urban system was at first based on the location of agriculturally productive areas and market towns, reinforced by emerging trade routes (Sarzin and Mehta, 2011). In Nigeria Kano became a thriving metropolis perhaps as early as the seventh century, serving as a hub of the textile industry and part of a trade route stretching across northern Nigeria, Chad, Sudan and all the way to the ports of North Africa (Bloch, R. et al., 2015).

Jedwab (2013) illustrates the more recent power of cocoa and other cash crops on the formation of urban systems in Côte d'Ivoire and Ghana, which followed the spatial pattern of crop production. Although the capital cities and the second-largest cities accounted for just less than half the urban population growth in those two countries in 1901–2000, a large proportion of the remaining growth was in areas suitable for cocoa: 66.3 per cent in Ghana and 80.0 per cent in Côte d'Ivoire.

Colonial-era investments, particularly in rail, reinforced the influence of natural resources and trade cities on Africa's urban systems. In Nigeria the construction of railways had a major impact on Nigeria's emerging urban system in the early 1900s, connecting agricultural and mineral producing regions in the north with Port Harcourt and Lagos. This led to the growing economic importance of these two coastal cities, the growth of cities along the railway line (such as Ibadan and Kano), the birth of new cities close to the railway (such as Kaduna and Enugu) and the decline of cities bypassed by the railway that had been traditionally important in pre-colonial times (such as Oyo, Ife-ife and Benin City) (Bloch, R. et al., 2015). Investments in railways during the colonial period also dramatically influenced the urban systems in Democratic Republic of Congo, Kenya and Sudan, with lasting impacts on their urban systems (box figure 4.2).

BOX FIGURE 4.2 African development and the impact of colonial railways



Source: Kerby, Moradi and Jedwab (2014).

The momentum of urban growth has in many places overcome the first-nature advantages of historically important cities over time, making them powerful economic centres and growth poles, though some cities show both first- and second-nature advantages, such as the economic inland hub of Gauteng province and the smaller centres of Cape Town, Durban and Port Elizabeth (Fedderke and Wollnik, 2007). In the extreme case the cumulative advantages of concentration in infrastructure and industrial activities, as well as administrative and government functions, have led to the creation of a “primary city” with economic influence exceeding its geographical boundaries and dominating the entire urban landscape, such as Dakar, Khartoum, Kinshasa and Monrovia.

TABLE 4.3 Results of selected econometric studies of industrial location in China, India and Indonesia

LOCATION AND STUDY	DATA	FACTOR PRICES	LABOUR AND REGULATION	ELECTRICITY QUALITY	INCENTIVES	MARKET ACCESS AND TRANSPORT INFRASTRUCTURE	FIRMS IN SUPPLIER INDUSTRY	FIRMS IN OWN INDUSTRY
China (Head and Riles, 1996)	Foreign investments in 54 cities	No effect	--	Positive	Very positive	Very positive for railways and ports	Very positive	
China (Amiti and Javorcik, 2005)	Foreign investments	--	--	--	--	Positive; interprovincial trade barriers deter investment	Very positive	Very positive
India (Lall and Mengistae, 2005)	Firm data on 40 cities in 8 manufacturing sectors	Negative for some industries	Negative	Positive	Positive	Positive	--	Positive
India (Lall and Chakravorty, 2005)	Firm investments	--	Negative	--	--	Positive	--	--
India (Mani, Pargal and Huq, 1997)	418 investment projects in 14 states	Positive for some industries	Negative	Positive	--	--	--	--
Indonesia (Deichmann et al., 2005)	Firm data from 294 districts in 15 industries	Negative for most industries	Negative for some industries			Positive for some industries	Positive for some industries	Positive for most industries
Indonesia (Henderson, Kuncoro and Nasution, 1996)	Firm data on non-food manufacturing kabupaten (regencies)	Negative	--	Positive	--	Positive (proximity to metro area)	--	Positive

Source: Deichmann et al. (2008).

in larger cities. This clustering is tied to the fact that knowledge spillovers occur over highly localized areas (Rosenthal and Strange, 2004). And because knowledge-based sectors are often engaged in innovation, search and experimentation, they tend to locate in larger and diverse cities so as to benefit from the cross-fertilization and dynamism that such cities offer (Puga, 2010). There is also an association between skill levels, city size and learning (Glaeser and Resseger, 2010). The productivity benefits of large cities have been demonstrated clearly when the labour force is more educated, particularly for cities with skill-intensive sectors such as professional services, arts and entertainment, information and finance (Abel, Dey and Gabe, 2012).

Skill-intensive industries and knowledge-based sectors are more prone to clustering and to be based in larger cities.

Some firms, particularly in established industries and labour-intensive sectors, seem to flourish best in specialized cities with higher levels of same-sector clustering and less diversity of firm types. In the Republic of Korea most heavy industries (such as metals, chemicals and transport equipment) established themselves in a few highly specialized cities (Vernon, Shalizi and Venables, 2001). Also in that country, apart from high-tech industries, such traditional industries as textiles and food processing benefit not from greater city size itself (Henderson, Lee and Lee, 2001) but from being in larger clusters (Henderson, 2010).

There is a tendency of manufacturing firms to deconcentrate once established. The overall concentration of manufacturing in the Republic of Korea went from 76 per cent clustered in the Seoul metro area in 1970 to only 30 per cent in 1993 (Henderson, 2014). Duranton and Puga (2001) show that in France 70 per cent of established firms changing locations go from a large, diverse city to a more specialized city. These findings on the importance of same-sector clustering are reinforced by case studies on industrial clusters (Overman and Venables, 2005) and clusters of exporting firms in Bangladesh, China, Dominican Republic, Honduras, Republic of Korea, Pakistan and Taiwan (China) (Hausmann and Rodrik, 2003).

PRIMARY AND SMALLER CITIES

In many African countries the concentration of industry predominantly in a single urban centre has contributed to the creation of an urban system that is dominated by a primary city ("primacy"). Systems of cities in developed economies tend to follow the "rank-size" rule, with cities decreasing in size by a common ratio (O'Sullivan, 2007). While nearly all countries globally have cities of various sizes, African countries tend to be characterized by unbalanced systems where economic activities and administrative functions are concentrated in the capital or largest city more than expected under the rank-size rule. Relative to the rest of the world, African countries lack cities in the population range of 1 million–5 million (Freire, Lall and Leipziger, 2014), and the average share of population in the average country's largest city in Africa excluding North Africa is higher than the corresponding city in other regions.

One popular explanation for Africa's excessive primacy is centralization of power and favouritism in resource allocation, which can negatively affect the quality of life, including child mortality and education, in towns and cities outside the capital (Henderson, Shalizi and Venables, 2001). In such systems small and medium-sized cities play little role in hosting rising urban populations and urban investment unless they reach a minimum competitive size threshold or unless large cities become unlivable (O'Sullivan, 2007).

The presence of primary cities itself is not a problem. In fact, according to Henderson (2003), by spatially concentrating industrialization, often in coastal cities, lower-income countries can conserve "scarce economic capital infrastructure and managerial resources." De-concentration and relocation can proceed with development as more resources become available and as cities begin to require more

African countries tend to be characterized by unbalanced systems where economic activities and administrative functions are concentrated in the capital or largest city more than expected under the rank-size rule.

expensive interventions to support the quality of life. Countries can allow for this process by addressing market failures that impede efficiency or distort the size structure itself and lead to excessive primacy (Overman and Venables, 2005).

In an urban context size matters given its relation to agglomeration economies. Primary cities, because of their size and diversity, are more productive than small cities, and small cities are more productive than rural areas (Duranton G. , 2015). However, there are both benefits and costs to large cities, and both increase with size. The same forces that drive clustering of businesses and people in cities also push cities to be too large (Annez and Buckley, 2009), when diseconomies set in: land and transport costs rise, and crowding can diminish the gains of urbanization (Quigley, 2008). Similarly, competition for space bids up housing prices and commuting costs.¹² Theoretically, cities have an optimum size, though identifying it is difficult (Overman and Venables, 2005).

Still, a study on China suggests that from an economic viewpoint, it costs much more to be undersized than oversized (Au and Henderson, 2005). Economic theory suggests that cities are past their optimum size but continue to grow owing to their continued productive advantage over other locations (O'Sullivan, 2007). In Lagos some workers commute hours in each direction daily, but most successful Nigerian firms still choose to have an office in the city.

A diverse national system of cities can give firms options, allowing them to select a large city with good urbanization economies or a smaller city with lower economies of agglomeration but also lower costs and congestion. The optimal location will vary by type and maturity of firm, and so having a functioning economic system of cities can improve the chances that firms will maximize the matching of their location-based requirements.

Large cities are important to the urban system, spurring growth by engendering innovation and entrepreneurship. Their role in reallocating resources from inefficient to efficient firms and sectors through churning (of jobs and firms) underlies the function of cities as engines of growth (Duranton and Puga, 1999). In developing countries large cities also offer the opportunity for entrepreneurs to access the market while learning from other firms

en route to reaching larger domestic, regional or global markets (Hausmann and Rodrik, 2003).¹³

Despite the advantages of a balanced urban system containing cities with a range of sizes and functions, policies to rebalance primary city-heavy systems are often ill advised and should be viewed with caution. Many African countries have historically pursued strategies to limit migration to the largest cities, which have been both ineffective and anti-growth (Turok, 2014; Harvey, 2009). Furthermore, Henderson (2014) argues that we do not yet know enough about the economic dynamics of urban systems to attempt to influence them, and such attempts risk a major policy error.

A study of programmes to foster agglomeration economies—many in Africa and targeted industrial sectors—suggests that there is a minimum threshold for locations to become competitive and begin attracting firms and investment (Gelb, Tata, Ramachandran and Rossignol, 2015). Very large investments may therefore be needed for some smaller cities to reach this threshold (Altbeker, McKeown and Bernstein, 2012).

Policies to promote secondary cities can have positive impacts if pursued alongside investments in existing large cities.

Still, some policies can foster development in smaller cities without harming national economic performance. Policies to invest in transport links between cities and improve urban-rural links have been shown to improve balanced productivity (AfDB, OECD and UNDP, 2016; UNECA, 2013). Additionally, industries with intensive use of immobile primary factors that are not heavily dependent on other firms for intermediate goods and services may prefer to locate in smaller cities—if infrastructure is improved (Henderson, Shalzi and Venables, 2001).

Policies to promote secondary cities can have positive impacts if pursued alongside investments in existing large cities. Big cities generally stay big and critical to the economy. Studies from France, Japan and the United States show that there is no downward relative size mobility at the top end

of the national urban system, as the top cities remain large after 100 years. Built-up physical infrastructure and housing, as well as accumulated knowledge, institutions and traditions, tend to give them a persistent advantage (Henderson, Shalzi and Venables, 2001). This is another reason why rebalancing policies should not restrict or neglect the economically central primary city.

Special economic zones (SEZs) are sometimes viewed as a custom-designed location for industrial productivity and can also play a role in an urban system, but they also have drawbacks, and Africa's experience with SEZs has been mixed (see box 4.4 below and the subsection "Connecting SEZs to the benefits of agglomeration" in section 5.4). The advantages of agglomeration economies are impossible to mimic in an isolated setting, and too often SEZs have been placed far from productive cities. Policymakers considering setting up an SEZ must therefore closely assess the locational needs of targeted sectors, including the ability to access a pool of skilled labour, suppliers and inputs, markets and shared knowledge (horizontal between same-sector firms and vertical between levels of the value chain). The process of locating SEZs should also consider the potential positive spillovers to existing firms and labour. Research suggests that links between SEZs and firms outside SEZs are often restricted in Africa and thus limit their impact on the wider economy (Newman, et al., 2016).

REGIONAL SYSTEM LINKS

Outside national systems of cities, specialization and trade-based complementary functions are sometimes seen among Africa's subregions,

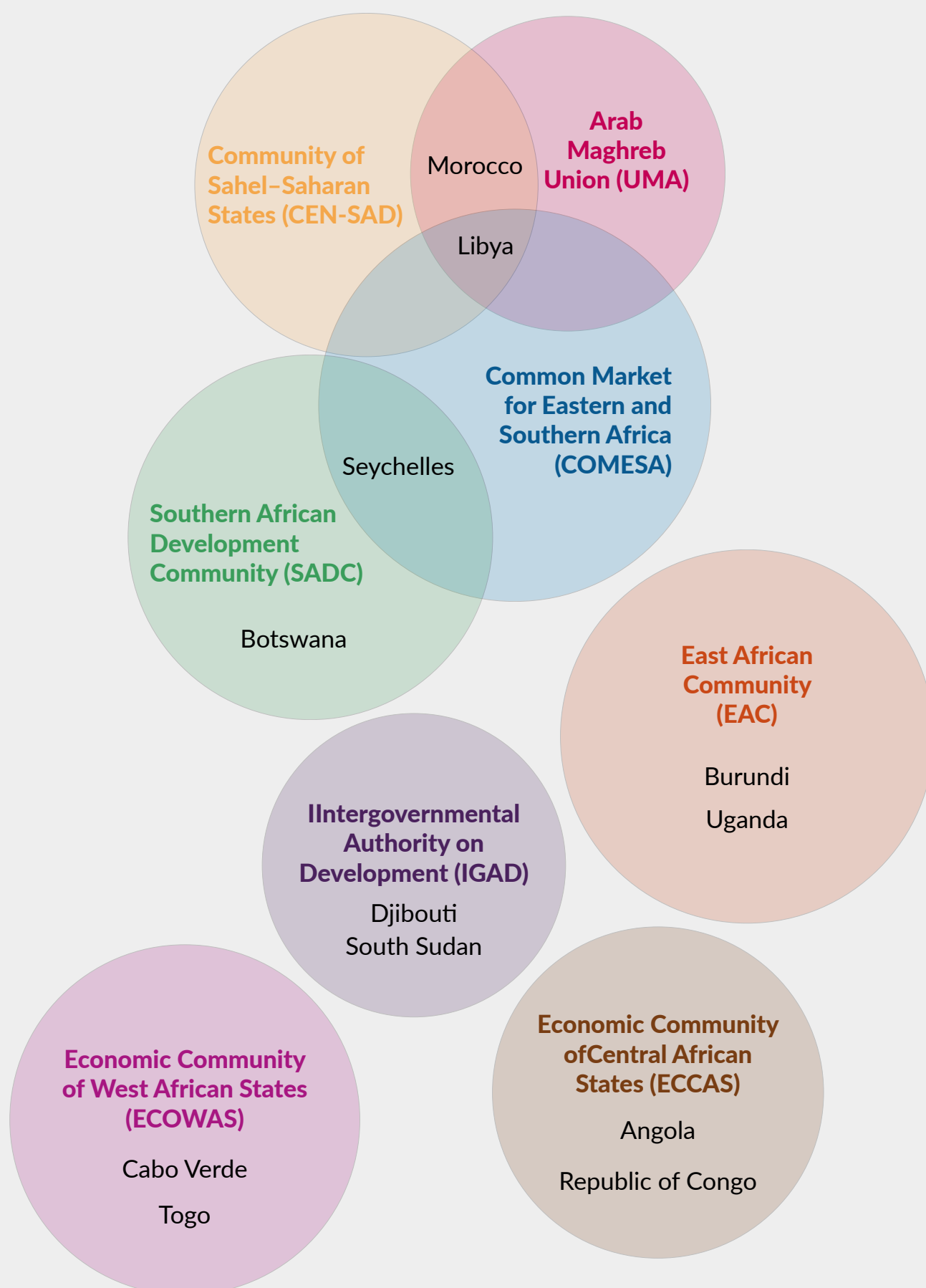
African regional markets offer significant opportunity for industrial upgrading, a consideration that should shape spatial targeting and investment in urban systems and corridors

which are important for many reasons, including opportunities for firms to learn from regional value chains before competing globally (UNECA, 2015). Regional integration is linked to competitiveness and innovation through knowledge sharing and network connections.¹⁴ Yet despite the economic importance of such connectedness, Africa is lagging behind in this area (Wall and van der Knapp, 2011).

African regional markets offer significant opportunity for industrial upgrading, a consideration that should shape spatial targeting and investment in urban systems and corridors. In 2014 manufactured goods accounted for 41.9 per cent of intra-African exports, compared with only 14.8 per cent of Africa's exports outside the continent (UNECA and ODI, forthcoming)¹. Regional economic communities are one forum where regionally significant policies and infrastructure can be planned, in line with national systems. Countries scoring high on the African Regional Integration Index in the category of infrastructure are listed in figure 4.9. The Continental Free Trade Area (CFTA) is a more ambitious undertaking (see box 1.3 in chapter 1).

1 The reference is a forthcoming ECA paper with ODI called "Smart Industrialization Through Trade in the Context of Africa's Transformation." The figures are computed by ECA using data from UNCTADSTAT.

FIGURE 4.9 Top two ranked countries per regional economic community on regional infrastructure



Source: Africa Regional Integration Index (2016).

4.3 CITIES AS ENABLERS OF INDUSTRIALIZATION

AGGLOMERATION ECONOMIES AND THE URBAN ADVANTAGE

Internationally and historically, cities have formed and grown primarily because of the economic benefits of clustering in space. With the industrial revolution the urbanization process and its speed went through a dramatic shift—ultimately forming today’s megacities, transforming the world’s population to a predominately urban one and now rapidly transforming Africa. The economic benefits of cities can be seen in the enduring correlation between economic growth and urbanization, and in the fact that megacities, such as metropolitan Cairo and Lagos, continue to grow and attract firms, even with severe challenges of congestion, pollution, crowding and high prices.

Agglomeration economies—the economic benefits derived from the density of economic actors in urban space—have well-documented productive benefits for firms (see chapter 3) and are fundamental to the urbanization–industrialization nexus. But

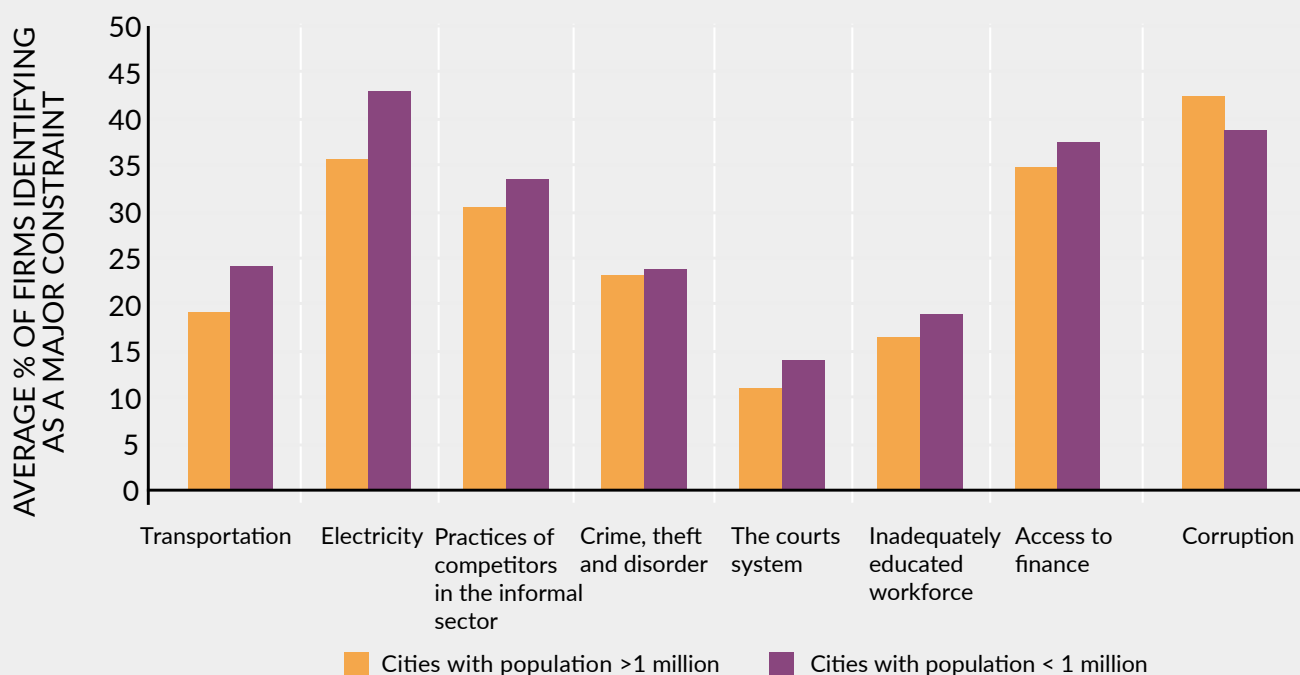
many obstacles impede countries from leveraging the full potential of agglomeration economies, even if Africa’s largest cities (those over 1 million) generally perform better on enterprise surveys than smaller cities (figure 4.10). They also demonstrate higher real annual sales growth and higher annual employment growth.¹⁵ Easing these constraints could release an even more powerful driver of economic development.

EVIDENCE OF AGGLOMERATION ECONOMIES FOR AFRICAN INDUSTRY

Studies to measure agglomeration economies of African cities are rare, but five quantitative studies on industrial clusters in Africa suggest that agglomeration economies are at work.

A case study of 11 countries—nine from Africa and two from Asia, including a four-country econometric

FIGURE 4.10 Major constraints listed by firms in cities above and below 1 million population, 2006–2015



Source: World Bank Enterprise Surveys.

Note: 188 subnational locations (25 over, 163 under 1 million) in 45 African countries.

study¹⁶—makes the following conclusions that confirm the positive impacts of industrial clustering (Page, Newman, Rand, Shimeles and Söderbom, 2016):

- Manufacturing firms are highly concentrated, indicating the strong role of clustering. Only firms whose main driver is the local market are dispersed.
- Firms in low-income countries appear to benefit more from localization than urbanization economies. With increasing income the importance of the latter appears to increase. Service sector firms more than manufacturing firms appear to benefit from urbanization economies.
- Industrial concentration attracts specialized services and expertise, including services needed by small enterprises aiming to break into new markets. Clustering makes intra-industry cooperation between firms possible, enabling them to overcome difficulties such as failures of information and of contract enforcement.
- In three of the four econometrically studied countries a positive relation between firm productivity and localization economies is seen. In Ethiopia the effect on productivity appears high when clustering firms are producing similar products. The effect of clustering in Cambodia is stronger for informal enterprises and manufacturing firms than for service firms.
- Clustering firms in low-income economies may face competitive pressure and a trade-off between increased productivity and decreased output prices.
- The driving forces of agglomeration economies appear linked to knowledge sharing and capability building. For firms with higher levels of technology, access to a pool of skilled labour also seems important.

Another study looked into six industrial clusters representing fish processing, metal processing, auto repair and cloth industries in Ghana, Kenya and South Africa to establish whether geographical proximity and interaction enhanced their competitive advantage and helped them expand (McCormik, 1999). There are three key findings. First, clustering helps firms to overcome barriers to growth; the nature and magnitude of the specific benefits and the relative importance of particular sources or channels of external economies vary by sector and national and local context. Second, collective action is required for participating firms to reap the benefits of agglomeration economies.

Five quantitative studies on industrial clusters in Africa suggest that agglomeration economies are at work.

And third, the small size of markets, oversupply of labour and weak institutions constrain the benefits of agglomeration.

A World Bank study of micro and small manufacturing enterprises in five African countries (Cameroon, Ghana, Kenya, Mauritius and Rwanda) found that cluster-based “enterprises are performing better—both in sales performance [per worker] and ability to reach distant markets—than enterprises of the same size, in the same industries, and in the same cities, but outside the clusters” (Yoshino, 2011, p. 5). Clustered enterprises were also on average more capital-intensive than their outside comparators, suggesting a correlation between sales performance and capital intensity. A cluster premium was also observed for value added per worker. Though clusters formed through a natural market-based process, participants in the clusters gradually built trust and organized joint actions that helped them to expand their market and increase the share of their input purchases within the cluster. Clusters to an extent enabled them to cope with risks and the high transaction costs of doing business and to overcome the limitations of their size.

Using 10-year (1996–2006) firm-level census data in 83 towns in Ethiopia, a study by Siba et al. (2012) looked at the relationship between agglomeration economies, physical productivity and output prices at the enterprise level. It found that agglomeration economies were associated with lower output prices for firms producing the same product, and a positive relationship between agglomeration economies and firm level physical productivity, showing the existence of increasing competitive pressure and positive externalities, but also a trade-off between physical productivity and price competition facing these firms.

The last of the five studies found that the benefits of proximity and interaction cascade through a network of cities in a regional corridor where development

nodes facilitate functional and economic linkages. Researchers who looked at the Gauteng regional development corridor in South Africa identified a hierarchy of cities, with Johannesburg and Pretoria the main drivers of urban agglomerations, and demonstrated that the relative size of economic activities of the cities and the distance between them to be the key factors determining the size and vibrancy of agglomeration economies (Brand, Geyer and Geyer, 2015).

In summary, these five studies found that urban areas hold benefits for firms in Africa. Generally, same-sector manufacturing firms were more productive when located in the same urban area, though they also faced price competition. Collective action and cooperation to address common barriers were one way firms could capitalize on co-localization. And while agglomeration economies seemed to be common across the studies, the benefits of clustering were not uniformly felt, differing by size of firm, sector and economic role of the city.

INDUSTRY-SPECIFIC ZONING AND SPECIAL ECONOMIC ZONES

Much of industry can be integrated into the urban fabric of a well-functioning city and benefit from proximity and connectedness at the heart of the urban productive advantage, particularly small industries and those devoted to serving local markets. Restrictive zoning, often a relic of colonial codes, should be avoided to allow firms to select the best location for their needs. But some industries—particularly those that are land-intensive, have “bad neighbour” characteristics (such as truck traffic or noise) or are focused on meeting rigorous

SEZs and industrial zones are geographically based tools and will bring the most benefits if they are well connected to the urban economy, including the informal sector firms that can provide low cost inputs and use linkages as a path to growth and formalization.

Links between the informal and formal sectors are spatially dependent and beneficial to both sectors. All basic urban requirements of formal industry also apply to informal industry.

international standards—may need specially zoned and protected areas.

Industry-specific zoning can manage four locational challenges. First, it can separate industrial nuisances from other land uses that would be in conflict with such industrial activity. Second, it can preserve large plots for those industries which need them. Third, it can promote proximity of compatible industrial activities, which can generate localization economies arising from clustering. Fourth, it can protect industry from land price competition, because land rents rise with development and other uses may be able to outbid industry. Cities such as Seattle and London have created “industrial sanctuaries” to protect industry from such land market pressures (Metro Vancouver, 2012; Harris, 2015).

This type of planning for industrial space is critical because of the very specific location requirements of some industries, often related to accessing trunk roads or ports (table 4.5). Governments should consider the operations of the supply chain and the transport links between them when identifying potential industrial sites. Such involvement in industrial land use planning is particularly important in African cities, where land markets may be complex and large parcels difficult to find, or where it is hard to obtain user rights. Agencies that keep an inventory of available industrial sites can help industrial enterprises find a fitting location.

Those involved in industrial land use planning should also consider the needs of informal enterprises, given their importance for job absorption in Africa and the challenges they often face in finding adequate premises for work. One option is to try to meet industrial firms’ location-specific needs through SEZs (box 4.4).

Links between the informal and formal sectors are spatially dependent and beneficial to both sectors.

TABLE 4.4 Industrial sector characteristics and location issues

SECTOR	ACTIVITY	LOCATION REQUIREMENTS	HEAVY TRUCK TRAFFIC VOLUMES	OTHER “BAD NEIGHBOUR” FACTORS	COMPATIBILITY WITH OTHER USES
Textiles	Manufacture of textiles, wearing apparel, luggage, handbags and footwear	Very high cost sensitivity and labour dependence on access to local labour pools	Low and irregular truck/van movements	Very limited	Very high
Printing	Publishing, printing and reproduction of recorded media, including books and newspapers	Transport accessibility for printing facilities	Moderate	Fairly limited owing to process innovation	Very high due to limited overspill
Metals, machinery and equipment	Variety of activities, light manufacturing	Dependence on raw materials and components, proximity to trunk roads	Medium to high truck movements	Moderate environmental overspill, often localized: smell, noise, pollution	Limited; “bad neighbour”
Wood and paper products	Variety of activities, light manufacturing	Dependence on raw materials and components, proximity to trunk roads	Medium to high truck movements	Moderate environmental overspill, often localized: smell, noise, pollution, scale	Limited; “bad neighbour”
Construction	Construction companies, yards for equipment and materials	Proximity to markets important	High numbers of truck movements	High: noise, spread of dust and mud, visual amenity issues	Limited, often a “bad neighbour”
Utilities	Power and water companies, largely distribution	Very high sunk costs; relocation hard	Low	Low but visual amenity issues	Moderate
Motor vehicle maintenance and repair	Repair workshops	Dependence on low rent for repair workshops, car access	Moderate to high numbers of car movements	Some localised overspills, visual amenity issues	Moderate
Wholesale	Large variety in operations, from high-grade to low-grade	Importance of market proximity for most operations	High number of car and van movements	Limited overspills	High
Distribution and warehousing	Storage and distribution, some large, modern operations, some smaller, pick-and-pack labour-intensive operations	Access to major trunk roads crucial	Very high	High; transport, noise, visual amenity	Low or moderate, depending on scale

Source: Adapted from Metro Vancouver (2012).

BOX 4.4 SPECIAL ECONOMIC ZONES

The purpose of SEZs is to create a space where businesses can access a better business environment, overcoming infrastructure deficits, administrative hurdles and barriers posed by unfavourable policies, particularly when these advantages cannot be feasibly applied to a broader geographical area. An additional advantage of SEZs is that clustering industrial firms can generate economies of agglomeration. SEZs have become very prevalent over the past decades, going from only 176 to more than 3,000 globally between 1986 and 2003 (Aggarwal, 2006).

Africa's SEZs are underperforming, however, against those in Asia and Latin America. While they have made major improvements in infrastructure, supply chain access and human capital compared with the surrounding environment, these improvements are often not at the level needed to out-compete other countries for investment (Farole, 2011). As business leaders in South Africa have concluded, "Global

competitiveness is what counts—it's not enough just to be better than the host economy" (Altbeker, McKeown and Bernstein, 2012, p. 3).

SEZs perform best when they are connected to well-functioning cities. Farole's review of SEZs in Africa has many findings, in particular that "Location and market size matter. Zones with proximate access to large consumer markets, suppliers and labor tend to be more successful" (2011, p. 4). This highlights the importance of components of agglomeration economies and spatial considerations for industrial success. SEZs can have powerful impacts for an economy through sharing innovation or through value chain linkages (Altbeker, McKeown, and Bernstein, 2012).

Farole notes that integrating SEZs with local ports, value chains and labour markets can help them be catalysts rather than enclaves. SEZs should therefore be linked with cluster development, skill development and labour sharing with the wider economy. He also

recommends that SEZs not be used to bring up a lagging region, but instead placed in an area where infrastructure and labour markets are already working and can contribute to their success. SEZs must be connected with good infrastructure to facilitate trade, including roads and ports.

SEZs and industrial zones are geographically based tools and will bring the most benefits if they are well connected to the urban economy, including the informal sector firms that can provide low cost inputs and use linkages as a path to growth and formalization. Links to markets and skilled labour are also critical. SEZs present opportunities for co-investment by firms and the public sector in infrastructure and technical and vocational education and training, which can broaden participation in economic growth and provide avenues for inclusion of critical workforce groups such as women and youth.

All the basic urban requirements of formal industry also apply to informal industry: access to labour (with emphasis on proximity, public transit and pedestrian infrastructure), access to infrastructure and public services, and access to inputs and markets for goods. The prevalence of the informal economy in Africa is a major hurdle for the continent, and there is an emerging consensus that policy can support a "path to formalization" (ILO, 2015) (box 4.5).

TECHNOLOGY: AFRICAN URBAN DEVELOPMENT IN THE 21ST CENTURY

Is the drive to cluster in space still relevant in the digital age? African cities are developing in a new-technology context where information, money and even goods can travel without physical proximity owing to ICT, mobile money and 3D printing. The emergence of the Internet caused some to forecast

No leapfrog technology can supplant the essential economic and social role of a functional city, but technology has the potential to contribute to urban productivity.

the death of cities in a new world where proximity is obsolete. However, global trends have contradicted this prediction, with populations shifting towards cities even in developed countries, and especially in Africa. The spatial nature of agglomeration economies is at play: in-person interactions are still important for networks, knowledge sharing and relationships; goods still travel by truck and rail; food cannot yet be 3D printed; and workers still commute to offices, stores and factories daily. In short no leapfrog technology can supplant the

BOX 4.5 A PATH TO FORMALIZATION

Such a path in African cities should involve the creation of enabling conditions and the removal of barriers facing formal enterprises, so that transitioning becomes achievable. In the light manufacturing sector small firms in Africa are constrained by access to land and finance as well as entrepreneurial skills (Dinh et al., 2012). Helping to remove these barriers could open up opportunities for aspiring informal sector operators. The informal economy can also benefit from clustering (Newman et al., 2016).

Agglomeration economies should be considered in the context of locational policies related to the informal sector and a path to formalization. Agglomeration economies can benefit the informal sector particularly through proximity to suppliers and purchasers. Although the evidence is scant, studies suggest that informal operators benefit from clustering, and that they generally have a positive impact on their formal sector counterparts (Annez and Buckley, 2009; Page et al., 2016).

One study of informal manufacturing in India finds that the population of the urban area and industrial diversity positively affect the establishment of new firms. Prevalence of same-sector firms shows a negative impact, however, perhaps due to competition, but input linkages have a positive impact (firms tend to locate where purchasers are), and informal services firms are also attracted to intermediate-goods suppliers (Mukim, 2011).

Clusters such as Otigba computer village in Lagos emerge and grow organically, and show immense resilience, but their expansion or transformation is often limited by a host of challenges beyond their collective effort. They would benefit from policy support.

essential economic and social role of a functional city, but technology has the potential to contribute to urban productivity.

Urban development has many applications for 21st century technology, and with the right policy framework it can be put to work to tackle urban challenges. Big data can inform transport planning and how investments are prioritized. Mapping, GPS tracking and widely accessible mobile data have the potential to improve spatial efficiency and the way urban residents interact with public transit, transport congestion, the real estate market and monetary transactions. In Africa ICT is already enhancing urban-rural linkages, supporting the co-development of cities and their hinterlands through better market information, better access to services and easier cash transfers.

The digital era also brings new challenges for emerging cities and policymakers. The pattern of growth of African cities will no doubt be shaped by new technology. Incentives for dense and compact development fall as transport, trade and communication over longer distances become easier. But as density decreases, negative externalities (costs borne by society) increase, including congestion, pollution, segregation, infrastructure costs, loss of walkable commercial districts and the costs associated with public transit viability.

Technology has historically contributed to lower densities and the negative externalities of sprawl. Many of Europe's cities developed before the automobile, whereas cities in the Americas and Asia have seen the majority of their population growth and urban development in the era of motorized

African cities have considerable opportunities for smart growth particularly as the bulk of infrastructure for the next few decades of population growth has yet to be built.

transport. European cities therefore tend to be more green, connected and developed on a human scale, while cities at a similar level of income, in the United States for example, tend to be more sprawling and disconnected, with larger carbon footprints. In the United States carbon dioxide emissions per capita for 2014 were 16.5 tons (and 15.9 tons in Canada), double or even triple the 8.7 tons in Germany, 6.5 tons in the United Kingdom, 5.5 tons in Italy and 5 tons in France (Oliver et al., 2015). Automobiles increased the land and carbon footprints of cities; the Internet is likely to do so even further.

FIGURE 4.11 An isolated housing development south of Nairobi along Mombasa Highway

Source: Satellite imagery by Google.

Urban areas are already sprawling on the periphery of many cities with isolated gated community developments (figure 4.10), prompting the questions: Who has access to the new African city? Only those with cars and smart phones? Will technology in fact help to overcome the formal/informal and rich/poor dualisms facing African cities—or to deepen them?

It would seem that African cities have considerable opportunities for smart growth,¹⁷ particularly as the bulk of infrastructure for the next few decades of population growth has yet to be built (PricewaterhouseCoopers, 2016). African cities are well positioned to avoid the mistakes and negative externalities dampening growth and social development in cities in the Americas and Asia. The new African city can be smarter and more efficient, avoiding the costly retrofitting required in many of the world's more recently established cities.

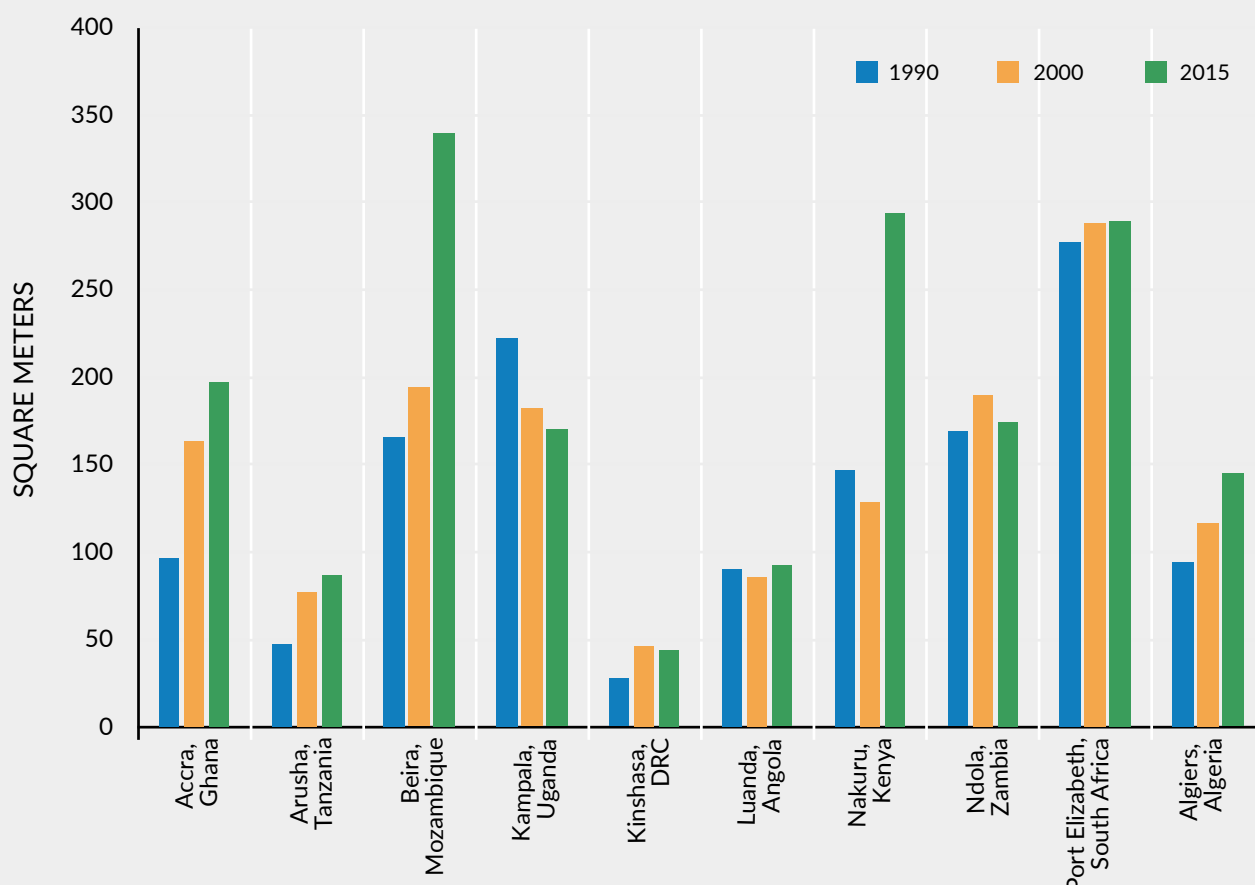
African cities are well positioned to avoid the mistakes and negative externalities dampening growth and social development in cities in the Americas and Asia.

Many African cities also have leeway to grow in a socially, environmentally and economically sustainable pattern, avoiding the mistakes of other regions. African countries tend to have very low carbon footprints, with many countries emitting less than 1 ton per capita.¹⁸ Under the right policies, carbon emissions will not have the same relationship with economic growth as seen in the Americas and Asia.

Similarly, although recent studies show that built-up land around cities is expanding faster than population growth, per capita urban land use in Africa is lower than the world average and increasing more slowly than the global pace, with 14 per cent growth versus 26 per cent between 1990 and 2015 (figure 4.12 shows selected African cities). This presents an opportunity for African cities to pursue a different development model from the more recent western development trajectory, characterized as it is by car-oriented development.

Guiding Africa's urban development in this direction will require policymakers to devote more attention to urban land use and transport. Even in the new technological age they must not neglect the fundamentals, as technology will shape cities,

FIGURE 4.12 Per capita land consumption, selected cities in Africa



Source: UN-Habitat and New York University (2016).

TABLE 4.5 Cost of living, Africa's 15 most expensive cities

RANK IN AFRICA	CITY	GLOBAL RANK	COUNTRY GDP PER CAPITA (\$)	MORE EXPENSIVE THAN...A
1	Luanda, Angola	2	4,102	Zurich, Switzerland (\$80,215)
2	Kinshasa, DRC	6	456	Shanghai, China (\$7,925)
3	N'Djamena, Chad	9	776	New York City, United States (\$55,837)
4	Lagos, Nigeria	13	2,640	Seoul, Republic of Korea (\$27,222)
5	Victoria, Seychelles	16	15,476	London, United Kingdom (\$43,734)
6	Abuja, Nigeria	20	2,640	Dubai, UAE (\$40,438)
7	Brazzaville, Congo, Rep.	23	1,851	Copenhagen, Denmark (\$52,002)
8	Libreville, Gabon	28	8,312	Chicago, United States (\$55,837)
9	Conakry, Guinea	36	531	Washington, DC, United States (\$55,837)
10	Djibouti, Djibouti	40	1,813	Paris, France (\$36,248)
11	Accra, Ghana	47	1,381	Milan, Italy (\$29,847)
12	Yaoundé, Cameroon	50	1,251	Vienna, Austria (\$43,439)
13	Abidjan, Côte d'Ivoire	56	1,399	Amsterdam, Netherlands (\$44,433)
14	Douala, Cameroon	70	1,251	Doha, Qatar (\$74,667)
15	Cairo, Egypt	91	3,615	San Jose, Costa Rica (\$10,630)

Source: Mercer, 2016; World Development Indicators. GDP per capita is for 2015 data.

^a. Per capita GDP is in parentheses.

but not replace them, as the need for proximity and interaction will still be forces driving spatial development. Functional land markets, well-

functioning transport systems and good basic urban services will lay the groundwork for the 21st century African city.

4.4 BARRIERS

As economies of agglomeration increase as cities grow, diseconomies of agglomeration also rise—to a point when diseconomies begin to climb faster than economies, to the detriment of urban competitiveness. In Africa such diseconomies may be setting in prematurely given the speed of urbanization, poor planning, weak institutions to guide urban growth and low incomes of many cities and urban residents. Such premature diseconomies of agglomeration take a toll on industry and industrial value chains.

As economies of agglomeration increase as cities grow, diseconomies of agglomeration also rise—to a point where diseconomies begin to climb faster than economies, to the detriment of urban competitiveness.

A raft of urban inefficiencies means that many African cities are disproportionately expensive relative to cities in countries at similar or even far higher levels of development. A cross-sectional comparative analysis of cost of living price indices of 62 countries adjusted for urban prices in a World Bank study shows that African cities are up to 31 per cent more expensive than those in comparable countries (Nakamura et al., 2016). According to consulting firm Mercer's cost of living rankings, Luanda, Kinshasa and N'Djamena are among the 10 most expensive cities in the world (table 4.5).¹⁹

URBAN FORM

Urban form—the spatial layout of cities—is important to economic functioning. The link between

urbanization and development is reliant on whether urban form is compact and connected, or sprawling and disconnected (AfDB, OECD and UNDP, 2016; Turok, 2014). Many studies have empirically linked urban density to productivity (Abel, Dey and Gabe, 2012); low densities increase travel distances between economic actors. The trend of urbanization has been paired with that of de-densification, and infrastructure and transport costs rise as densities fall (UN-Habitat, 2014a).

Cities in developing countries tend to be denser than those in developed countries, but densities globally declined by an average of 2 per cent a year between 1990 and 2000 (Angel et al., 2010). Urban expansion is occurring faster in developing countries, and in Africa population growth accounts for 43 per cent of the expansion of developed land (Seto et al., 2011). Globally, factors accounting for urban de-densification include increased car ownership, an infrastructure investment bias towards roads, increases in incomes and private home ownership, and policies subsidizing peri-urban residential infrastructure.

Diverse, integrated urban form is also crucial. Mixed-use developments multiply the benefits of density, bringing people together for easier interaction (UN-Habitat, 2014a). The most vibrant cities are mixed and diverse, as argued persuasively by Jacobs (1961); over-planning and over-zoning can impose a false separation of land uses on a city's economic geography. Cities are also becoming more socially segregated, decreasing connectivity and undermining the interactions at the heart of agglomeration economies. Some new formal development takes the form of gated communities,

Urban form- the spatial layout of cities- is important for economic functioning.

lengthening travel times and creating barriers in the urban fabric. The often-cited rationale for such barriers is safety, but such segregation also contributes to weak social cohesion (Landman and Schönteich, 2002).

Just as problematic are large areas devoted to entrenched informal developments, and some analysts have even suggested that slums are the greatest threat to urban well-being (UN-Habitat, 2010b) because they cut off a generation from education and health (Henderson, 2010). They are generally seen as poverty traps, but can also be ladders to economic mobility under the right institutional and spatial conditions (Turok, 2015), and should therefore be intentionally connected (physically and socially) to the formal urban economy. Overcoming the barriers to employment presented by segregation and poor mobility is particularly important for Africa's urban youth and the potential for a demographic dividend (UN-Habitat, 2014b).

People's mobility also underlies urban productivity, and the costs of poor mobility and long travel times take a heavy toll, particularly on the urban poor in large African cities, reducing their chances of finding work. Residents of Nairobi, Kenya; Pretoria, South Africa; and Dar es Salaam, Tanzania spend as much as 30 per cent of their daily wages on commuting by collective taxi, motorbike, bus, or a combination. Surveys from Nairobi, Kenya; Lagos, Nigeria; and South Africa suggest that lower-income households pay 15–54 per cent of their income on travel (UN-Habitat, 2013). In South African cities the average commute by bus is 74 minutes each way (Statistics South Africa, 2014).

The idea of a “spatial mismatch” was described by Kain (1968) who observed that the residential

areas of lower-income groups were cut off from jobs, contributing to high unemployment (Kain, 1968). This idea has been tested in South Africa, where one study found that distance from the city centre plays a significant role in high rates of black unemployment in several of South Africa's metropolitan areas (Naudé, 2008). Investment in better multi-modal options for urban mobility is one way to decouple Africa's dual processes of urbanization and industrialization from the degradation of the environment so as to improve sustainability and avoid heavy future remediation costs (box 4.6).

Unplanned urban expansion will eventually pose major problems for connectivity and mobility, weakening agglomeration economies.

To see the benefits of labour sharing and labour pooling, firms must be accessible to their workforce. In Hong Kong SAR, China, industrial parks must have a transit connection (Metro Vancouver, 2012), in contrast to Johannesburg, South Africa, where some industries cannot add a third shift for lack of night buses. At a roundtable meeting in November 2011 on South Africa's industrial parks, arranged by South Africa's Centre for Development and Enterprise, speakers repeatedly cited access to labour as an issue (Altbeker, McKeown and Bernstein, 2012). Transport connections can also support backward linkages to informal enterprises (UNECA, 2011).

In fast-urbanizing countries an additional threat to mobility is a failure to plan for (and protect) a connected network of streets ahead of unplanned

BOX 4.6 AIMING TO URBANIZE MORE CLEANLY

Africa needs to de-link industrialization from the degradation of air quality (UNECA, 2016) and avoid a situation like China's where the health costs and working days lost due to air pollution are estimated at 3.5 per cent of GDP (World Bank, 2007). Transport accounts for a large share of emissions globally, but in African cities on average, walking accounts for 30–35 per cent of all trips—in some cities, such as Douala, Cameroon and Dakar, Senegal, over 60 per cent. Walking is especially common among women, but walking, bicycling and informal transit are often fraught with danger from vehicle traffic, pollution and discomfort (UN-Habitat, 2013). Failure to improve infrastructure for non-motorized modes and the comfort and safety of informal transit will propel a massive shift to single-occupancy vehicles as incomes rise, with corresponding economic, social and environmental costs.

FIGURE 4.13 The street grid in Ouagadougou, Burkina Faso

Source: Satellite imagery by Google.

development, which often manifests itself in the form of low-income informal settlements, higher-income private gated communities or some combination. Whether formal or informal, unplanned urban expansion will eventually pose major problems for connectivity and mobility, weakening agglomeration economies. Although UN-Habitat (2014c) recommends that at least 30–40 per cent of urban land be dedicated to streets, the reality is that in most African cities the proportion is much lower, particularly in rapidly urbanizing peripheries, and is a mere 6 per cent in Bangui, Central African Republic; 11.1 per cent in Accra, Ghana; and 12.3 per cent in Ouagadougou, Burkina Faso (UN-Habitat, 2013), for which city figure 4.12 reveals the stark contrast between planned and well-connected urban fabric and unplanned areas with poor connectivity.

Planning streets and industrial land in advance of growth saves money—hugely. The cost of obtaining or protecting a supply of land in urban expansion zones may well be steep, but imposing streets or plots for industrial use on existing development is extremely expensive, and often entails either extensive legal processes or evictions without due legal process. It is highly preferable to avoid these issues completely, with forward planning.

URBAN INFRASTRUCTURE

Infrastructure deficits are widely recognized as one of the greatest barriers to industrial success in Africa. Even controlling for income, African countries show higher deficits than their peers in other parts of the developing world (Yepes, Pierce and Foster, 2009). This poses significant indirect costs to firms, underlined by an observation about firms in Kenya: “By some estimates, Kenya’s factory floor productivity is close to China’s; but once we account for indirect costs, Kenyan firms lose 40 per cent of their productivity advantage” (Iarossi, 2009, p. 87).²⁰ Informal firms often most need access to infrastructure and public services to upgrade productivity, but face the highest barriers to access.

Electricity is often the most significant of the unmet needs for industrial firm productivity. Africa’s power generating capacity and household access to electricity stands at around half the levels observed

Infrastructure deficits are widely recognized as one of the greatest barriers to industrial success in Africa.

in South Asia (Yepes, Pierce and Foster, 2009). Firms in Africa lose up to 13 per cent of their working hours due to outages. Electricity costs African firms 10 per cent of sales costs, with 6 per cent estimated to be due to power outages (Iarossi, 2009). Firms can buy generators, but this adds a financial burden, especially on micro and small enterprises. Findings from other studies, for example on India, confirm the importance of the quality and, to a lesser extent, the price of electricity to the performance

The functioning of urban land markets is one of the most critical components of a high-performing urban economy, as it underlies the arrangement of urban space and is fundamental in both private finance and public revenues.

of manufacturing industry (Lall and Mengistae, 2005). Electricity cost is one of the major factors in which Africa is disadvantaged relative to other regions, with the average effective electricity tariff in Africa at \$0.14 per kilowatt-hour in 2010, against \$0.04 in South Asia and \$0.07 in East Asia, harming the competitiveness of African firms (African Development Bank, 2013).

Another key infrastructure deficit is in goods transport. African firms lose what amounts to 13 per cent of their sales—11 per cent more than in East Asia and 7–8 per cent more than in other regions—on inefficiencies in infrastructure, credit markets and the regulatory environment, but this varies across firms and countries. Firms in East Asia, and in Latin America and South Asia save 70 per cent and 50 per cent respectively in inland transport costs of exports and imports compared with Africa (Iarossi, 2009). High transport costs, delays and uncertainties force African firms to keep a high volume of stocks, incurring associated additional cost. Infrastructure for freight transport is also important within cities: traffic congestion and delays cause additional costs in shipping by truck, and expanding road capacity is only a temporary fix. Innovative measures such as truck-only lanes have not been tested in Africa.

LAND AND PROPERTY MARKETS

The functioning of urban land markets is one of the most critical components of a high-performing urban economy, as it underlies the arrangement of urban space and is fundamental in both private finance and public revenues. A variety of land rights systems operate in African cities, ranging from customary and collective ownership, to government ownership with leasehold rights, to full freehold titles. Under any system, the land market should allow for residential and firm mobility, and not place undue burdens on developing land while protecting lower-income households, informal enterprises and women.

If land and real estate markets are functioning smoothly, economic actors have more chance of sorting themselves into an economically efficient arrangement in urban space. Different firms have their own locational preferences based on the intensity of various factor inputs and the nature of production. In selecting the best location they weigh their preferences for access to land, labour (skilled or unskilled), inputs from other firms, market access (including the transport links to other cities or countries) and access to knowledge and amenities. A flexible land market allows households and firms to respond as economic conditions change, fostering innovation and competitiveness.

Well-functioning real estate markets do not necessarily imply a fully “laissez faire” system, and government involvement is important. Even the idea that a free urban real estate market can exist outside of government intervention is erroneous because governments help to determine where to locate infrastructure, public services and open spaces. While the institutional framework supporting the real estate market should support arm’s-length transactions between strangers, government intervention is also necessary to achieve the following:

The lack of good land records in Africa has far reaching impacts, including impeding the use of land based public revenues such as annual property taxes, leasehold payments and capital gains taxes.

- Preventing speculation, which can distort prices and undermine spatial efficiency.
- Providing adequate buildable and serviced land for housing and employment in locations that promote good connectivity and accommodate urban growth.
- Avoiding the development of high-risk or environmentally sensitive areas.
- Assuring the necessary land and institutional framework to support adequate housing for low-income households and to protect them from displacement by market forces.

- Carrying out zoning and protecting well-located land for industries that are incompatible with other uses or need large plots.

The lack of good land records in Africa has far-reaching impacts, including impeding the use of land-based public revenue such as annual property taxes, leasehold payments and capital gains taxes. Land value capture is, some argue, the most economically efficient (least distortionary) and important revenue instrument for decentralized governments (Walters and Gauntner, 2016). It is widely underused in Africa, however, in part because of the poor quality of land records and governance challenges (Monkam and Moore, 2015).

4.5 POLICY LEVERS

Expanding the urban advantages and leveraging them for industrial development is complex and challenging. The New Urban Agenda affirms the role of agglomeration economies and underscores the importance of spatial planning and urban form in achieving them (United Nations General Assembly, 2016). Harnessing agglomerations and clusters, along with stepping up investment in infrastructure and skills, is an important piece of the multi-front strategies being advocated for resurrecting Africa's industrial development (Newman et al., 2016).

Under the umbrella of national development planning, successful coordination and integration of urbanization and industrial development can be gauged if one looks at the policy and implementation spheres.

Policies to create productive cities and urban systems that can support structural change should be embedded in national development planning frameworks for three reasons:

- Infrastructure deficits underlie the weak performance of both African industries and cities, and fixing them requires a great deal of coordination among national agencies.
- Firms and value chains have sector-specific infrastructure needs, but invariably

involve improving not just the linkages between firms but also the connectivity between cities and regions.

- The urban and industrial development agendas demand policy reforms and implementation capacities (see table 3.2), which require coordination between the public and private sectors, and between levels of government.

Under the umbrella of national development planning, successful coordination and integration of urbanization and industrial development can be gauged if one looks at the policy and implementation spheres. The central questions are: How effectively and coherently are industrial and urban development goals and targets coordinated and embedded in the national development planning and policy framework? And how far are policy design and implementation capacity aligned, including subnationally? Some of the key aspects are:

- Linking industry and urban development policies and targets.
- Aligning flagship urban housing and infrastructure programmes with industrial development.
- Including spatial elements in industrial policy, and industrial priorities in the national spatial planning framework.
- Creating an institutional framework for implementation, including capacity, champions and coordination mechanisms.

- Linking sector strategies, national spatial planning and financing.
- Prioritizing economic objectives as part of the rationale for urban planning, zoning, land management and building regulations.

FINDINGS AND POLICY IMPLICATIONS OF DRIVERS, ENABLERS AND BARRIERS

URBAN DEMAND AND SHIFTING PATTERNS OF CONSUMPTION AS DRIVERS

Africa's urbanization is accompanied by a growing consumer class with more purchasing power and preferences for urban goods. The policy implication is that governments should target strategic sectors of growing demand and help domestic industry and value chains to develop, in order to meet this demand.

Alongside urbanization is a shift towards processed food and an increase in food consumption. This presents economic opportunities for contract farming, supply chain development and urban retailing. As large food retailers tend to have the most power in processed food value chains, the institutional framework and infrastructure to support each of the linkages in the food value chain are essential to supporting domestic food production. Working with lead firms in this area has the potential to be a powerful policy lever.

Governments should target strategic sectors of growing demand and help domestic industry and value chains to develop, in order to meet this demand.

The urban housing backlog is severe. The institutional framework here influences the ability of housing suppliers to respond to demand. Critical institutional factors include the permitting process; efficiency of land markets; availability of infrastructure, services, building materials and labour in the construction sector; and access to mortgage finance. As incomes rise, more and higher-quality formal housing is being built. Still, a large low-income population

has no access to market-rate housing. Accordingly, the framework must adapt to support housing supply generally and social housing particularly. Governments can leverage both types of housing to expand the domestic construction and building materials industries with the right policy framework.

The urban infrastructure backlog is also heavy, affecting the spatial structure of cities and undermining their competitiveness. Uninterrupted electricity supplies and good roads are urgently needed to support industrial productivity. Infrastructure investments should therefore be carefully supported to meet the needs of industry and cities, and to create industrial jobs during execution. Contracting and procurement policies should be designed to stimulate local construction and production capacity.

Urban-based business services are linked to industrial productivity and positive structural transformation. Consequently, cities should support the business services development, including finance and information technology, and their linkages to industry. This requires both targeted and integrated urban economic policies.

URBAN SYSTEMS AS ENABLERS OF INDUSTRIAL PRODUCTIVITY

The location of industry has an economic logic, based on first-nature and second-nature characteristics. Governments attempting to select a location for industrial development should, for this reason, consider natural location-based characteristics as well as the powerful forces of infrastructure and agglomeration.

Africa's urban systems are dominated by large primary cities, though there is an economic rationale for their dominance. In this light policies to promote balanced development should not neglect primary cities because they are at the crux of economic innovation and growth.

Firms have specific location preferences based on their age and reliance on knowledge sharing, technology, labour, inputs and access to final markets. Policymakers should therefore tailor location-based industrial policies to the needs of targeted sectors and firms.

Large, diverse cities tend to be the hubs of innovation

and new industry formation. Thus governments should foster these advantages by supporting knowledge-based institutions and mechanisms for knowledge sharing between firms of different sizes and sectors in large cities.

Regional trade and its economic advantages have spatial components that influence systems of cities and corridors. Policies targeting spatial investments should on this basis consider not just national but regional economic geography.

Input-intensive sectors tend to locate near the source of inputs. Good urban–rural linkages, in the form of infrastructure and institutional support, can therefore help input-intensive sectors to flourish.

Specialized secondary cities can provide attractive locations for industrial production, but there is a minimum threshold to trigger agglomeration economies. Consequently, providing serviced and viable secondary-city alternatives may give mature firms better locational options. Investment is more likely to be cost effective in cities that are already close to becoming attractive and productive locations for firms and investors, and in cities that can support investments targeted to industries already interested in locating there. Investment in roads and connectivity based on careful spatial vision will in the long run help to evolve viable secondary cities.

Regional trade and its economic advantages have spatial components that influence systems of cities and corridors. Policies targeting spatial investments should on this basis consider not just national but regional economic geography.

CITIES AS ENABLERS OF INDUSTRIAL GROWTH

The productive advantage of cities is well documented generally with some evidence in African cities, which serve as focal points for economic growth and productivity. The upshot is that governments should avoid policies that harm or undermine cities and their economic functioning.

Moreover, economic policies should focus on cities to an extent commensurate with their role in innovation, value addition and job creation.

Agglomeration economies hinge on improved accessibility to larger markets, pools of labour, selection of inputs and new knowledge and ideas. Against this backdrop policies to help diverse economic actors to interact within cities will improve productivity.

The ability of industries to access the productive advantages of cities is not a given. Governments should therefore plan cities and preserve prime industrial locations to help industrial firms to meet their unique locational requirements.

SEZs have the potential to improve the business environment, but as they are underperforming in Africa, governments should ensure that these zones create locational advantages strong enough to compete with those in other countries. SEZs perform better when they are connected to local labour markets and value chains. Creating these links can also broaden the benefits of SEZs to the wider economy.

New technology presents a different development context for African cities, with opportunities tied to smart planning, trade and travel, and challenges related to sprawl and its negative externalities. Thus policymakers should leverage technology for planning better cities while continuing to focus on the fundamentals: connected, compact and diverse land use, and efficient and green transport systems.

Economic policies should focus on cities to an extent commensurate with their role in innovation, value addition and job creation.

BARRIERS

Agglomeration economies are powerful but underperforming in Africa's largest cities, so improving the economic functioning of the largest cities holds potential benefits.

African cities tend to be too expensive, reducing firm competitiveness and hurting the urban poor.

Agglomeration economies are powerful but underperforming in Africa's largest cities, hence improving the economic functioning of the largest cities holds potential benefits.

Therefore, investing in improving urban institutions, making property markets work, implementing urban transport strategies, and facilitating compact, connected and integrated development will help African firms to compete on the global market.

Urban economic advantages are undermined by inadequate density, residential segregation and the artificial separation of land uses. For these reasons governments should refrain from over-zoning and constraining the density of urban development, while still providing well-located industrial land and space for streets. Government intervention is also needed to foster social mixing and to reduce barriers between communities, including provision of affordable housing in a range of urban locations.

Agglomeration economies are undercut when connectivity, urban mobility and infrastructure are poor. Weak transport connections between industries and workers harm industrial productivity and job seekers. So governments should improve urban efficiency by providing a network of connected transport links, including to industrial areas, and by supporting policies to cut transport costs and congestion. Support to mass transit and non-motorized modes can slow the increase of congestion, provide better transport options for many urban residents and have benefits in reduced greenhouse emissions and for health.

Infrastructure, particularly for electricity and transport, poses crucial barriers to industrial firms and the economies of cities generally. For this reason infrastructure investments that have benefits for urban and industrial policy agendas should be prioritized and coordinated.

The poor functioning of land and real estate markets poses cross-cutting disadvantages, undermining economies of agglomeration, access to mortgage finance, and subnational land-based revenue streams. The final policy implication is that improving

land management, including easy and transparent property registration, should be prioritized.

In summary, policymakers have a wealth of opportunities to link urbanization and industrial development under the umbrella of a national development planning framework. However, they must make hard choices in prioritizing the policy focus and investments. These choices should be grounded in a clear understanding of the existing and emerging opportunities tied to urbanization, the complementary and connected roles within the national and regional systems of cities, and the importance of policies to improve the functioning of existing cities.

The next chapter reviews country experiences from case studies in leveraging urban demand, balancing systems of cities, overcoming barriers to agglomeration economies, and linking urban and industrial development through integrated policies.

Policymakers have a wealth of opportunities to link urbanization and industrial development under the umbrella of a national development planning framework. However, they must make hard choices in prioritizing the policy focus and investments.

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ENDNOTES

- 1 The link between urbanization and industrialization is bidirectional. This chapter and the following chapters focus on the ways urbanization can better support industrialization because this side of the relationship is of policy concern for countries experiencing urbanization in the context of poorly performing industrialization, as described in chapter 3.
- 2 Several issues critical for industrial development are not discussed here, including education systems, trade policy and currency valuation, and access to specific infrastructure and public services. Previous Economic Reports on Africa cover various aspects of industrialization in more depth.
- 3 The African Development Bank categorizes the middle class in three categories: the “floating class” (earning \$2–4 PPP a day), the “lower class” (\$4–10 PPP) and the “upper class” (\$10–20 PPP). The Pew Research Center defines members of the middle class as those earning \$10–20 a day.
- 4 Data from UN Comtrade database and World Development Indicators.
- 5 The scale and growth of the middle class in Africa are controversial, partly for definitional and measurement reasons. Numbers aside though, cities offer growth opportunities to domestic industry from their expanding populations’ rising disposable incomes, particularly in countries with large national markets.
- 6 Approved by UN member states in Quito, Ecuador, in October 2016.
- 7 Tradeable services such as finance tend to be more supportive of industrial value chains and have greater potential to contribute to growth than non-tradeable services.
- 8 Knowledge sharing, labour pooling and skills matching—all critical to the urban productive advantage—cannot operate in the face of inadequate education and training. Even in a perfectly designed city, agglomeration economies will falter without good institutions of education and training for industrial jobs.
- 9 “First-nature” and “second-nature” geography are terms used to differentiate between truly natural advantages of a location from that of advantages generated through concentration of population and production.
- 10 That is, with many economic actors on both the supply and demand sides.
- 11 Centrifugal and centripetal forces are terms borrowed from physics but used in the New Economic Geography to discuss the push and pull forces of urban economies on firms.
- 12 Based on data for 80–90 cities from Organisation for Economic Co-operation and Development (OECD) and low-income countries, Henderson, Shalzi and Venables (2001) calculate an elasticity of 0.25 for both housing and commuting costs.
- 13 In many countries, large cities are particularly important in harnessing the demographic dividend from a large population of educated youth.
- 14 See UNECA’s report, *Assessing Regional Integration in Africa VII* (2016), for detailed treatment.
- 15 Using the most recent data available for enterprise surveys in African countries, the average real annual sales growth was 1.1 per cent for cities of over 1 million, and -5.1 per cent for other locations. The annual employment growth was 5.6 per cent for cities of over million and 5.0 per cent for other locations. Source: World Bank Enterprise Surveys.
- 16 Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Senegal, Tanzania, Tunisia and Uganda; Cambodia and Vietnam; and Ethiopia, Tunisia, Cambodia and Vietnam.
- 17 Smart growth refers to urban development that is compact and connected, with benefits for social mobility, economic connectivity and environmental sustainability.
- 18 However, the two regions with the lowest carbon footprint, East and West Africa have also seen the most rapid increase in per capita carbon emissions over the last decade: 39 per cent and 13 per cent, respectively (using data in 2005–2014), highlighting the need for policy action. Data: (Oliver et al., 2015); calculations by authors.
- 19 Mercer’s cost of living data are based on expatriate living expenses (including rent), but the rankings are informative for cross-city comparisons.
- 20 There is wide variation in production costs among African countries. It is less costly to produce in Algeria, Botswana, Egypt, Kenya, Morocco, Namibia and South Africa. These countries are viable competitors with major international players such as Brazil, Thailand and Vietnam. It is twice as expensive to produce in Nigeria (Iarossi, 2009).

5 URBANIZATION AND INDUSTRIALIZATION IN PRACTICE



Urbanization is an unstoppable force that is changing the economic geography of Africa. Under the right policy framework, harnessing the momentum of urbanization can carry industry forward to a more prosperous and equitable future. Drawing on the conceptual framework of chapter 4, this chapter explores case studies to connect the forces of urbanization and industrialization in three ways.¹

USING URBAN DEMAND TO DRIVE INDUSTRIAL DEVELOPMENT

Africa's rising middle class is consuming more and different types of goods, as its members live increasingly in cities. Domestic and regional markets are expanding, creating opportunities for African industries to meet growing, and shifting, demand. Strategic and expanding sectors, supported by domestic policy, can leverage this demand to boost industrial development. Some present common opportunities to expand industries to meet urban domestic and regional demand while generating jobs and supporting development outcomes in the following areas: agro-processing, urban housing

construction, urban infrastructure construction and urban-based business services, especially finance and information and communications technology (ICT).

ENSURING BALANCED SYSTEMS OF CITIES

Africa's urban systems tend to be top heavy with a primary city that is expensive and crowded, and secondary cities that are too small to be viable alternatives for competitive industries. Yet policies to rebalance the urban system risk wasting resources.

Under the right policy framework, harnessing the momentum of urbanization can carry industry forward to a more prosperous and equitable future.

Still, policies that are well targeted can create viable industrial locations that meet the needs of industry without impinging on the economic power of large cities. Supporting the role of large cities to be centres of knowledge and innovation can help leverage their potential for industrial productivity. At the same time, secondary cities and well-located special economic zones (SEZs) with the right infrastructure can balance the needs of sectors for access to inputs, labour, markets and knowledge. Urban–rural linkages are also a key area for spatial targeting and infrastructure investment, where input-intensive industries can foster decentralized development and boost rural productivity. Managing the trade-offs among investment strategies requires policymakers to consider location-based comparative advantages.

OVERCOMING COMMON LAND-BASED BARRIERS TO AGGLOMERATION ECONOMIES

Agglomeration economies are powerful economic forces, as seen in the willingness of firms and people to endure difficult urban conditions to access the benefits of large cities. So, if the challenges are

Africa's urban systems tend to be top heavy with a primary city that is expensive and crowded, and secondary cities that are too small to be viable alternatives for competitive industries.

tackled decisively, the potential benefits are large. These challenges include weak land and property markets, low foresight in allocating space for streets and industrial use, constrained multi-modal mobility and lack of integration of diverse people and activities.

The chapter concludes with the policy implications of linking urban and industrial development through integrated policies and highlighting the importance of coordination and financial support during policy implementation.

5.1 ELEVEN CASE STUDY COUNTRIES

The chapter considers actual practice and experience in Africa, using 11 case study countries (table 5.1) and evidence from other countries and cities. The countries come from the five subregions of Africa (East, Central, North, Southern and West) and exhibit varying levels of urbanization, urban population growth, and industrialization. Some countries are already majority urban (Cameroon, Republic of Congo, Côte d'Ivoire, Morocco and South Africa) while others are still predominantly rural. Most of the countries exhibit high rates of urban population growth, as well as “urban primacy,” understood as urban population concentration dominated by the largest city. The average share of population in the largest city in African countries is higher than a corresponding city in other regions.

The share of industry (employment and value added as a share of GDP) is generally low, but

with the Republic of Congo, Morocco and South Africa performing better. Value added by services as a share of GDP is over 50 per cent in seven of the countries and at or just below 40 per cent in the others. Countries are thus fast urbanizing in economies where industry is still at a fledgling stage and services are booming, often in non-tradeable and informal subsectors (see chapter 3).

The evidence from the case studies corroborates the bidirectional relationship between urbanization and industrialization, but points to significant scope to optimize the potential of urbanization to support industrial development through considered policies and interventions to augment enablers and minimize barriers.

One useful way to group countries—given that policy frameworks must reflect the situation of

TABLE 5.1 Basic statistics on the 11 case study countries

	CAMEROON	REPUBLIC OF CONGO	CÔTE D'IVOIRE	ETHIOPIA	MADAGASCAR	MOROCCO	MOZAMBIQUE	NIGERIA	RWANDA	SOUTH AFRICA	SUDAN
Population (millions)	23.3	4.6	22.7	99.4	24.2	34.4	28.0	182.2	11.6	55.0	40.2
Urbanization (% of total population)	54.4	65.4	54.2	19.5	35.1	60.2	32.2	47.8	28.8	64.8	33.8
Urban population growth rate (10-year average)	3.7	3.5	3.7	4.8	4.8	2.1	3.5	4.7	6.6	2.4	2.6
Share of urban population in largest city (%)	24.1	62.5	39.5	16.7	30.7	17.0	13.2	15.1	37.6	26.4	37.7
GDP per capita (\$)	1,251	1,851	1,399	619	412	2,872	525	2,640	697	5,692	2,089
Industry value added (% of GDP)	27.8	54.7	21.5	16.3	18.1	29.3a	20.1	20.4	14.2	28.7	20.5
Industry value added growth rate (10-year average)	2.4	2.5c	1.8	14.8	5.9	3.1	6.3	2.3	9.3	1.1	2.4
Employment in industry (% , last year available)	9.1	20.6	NA	7.4	7.9	21.4	3.4	8.5	6.7	23.5	15.3
Natural resource rents (% of GDP, 2014)	9.9	48.2	7.3	12.7	10.9	2.7	13.6	12.5	6.1	7.6	6.4
Manufacturing value added (% of GDP)	13.4	7.3	12.5	4.1	14.4b	18.2	9.7	9.5	4.8	13.0	7.8
Services value added (% of GDP)	48.2	38.1	55.5	42.8	57.8	57.7	54.4	58.8	47.5	68.9	50.9

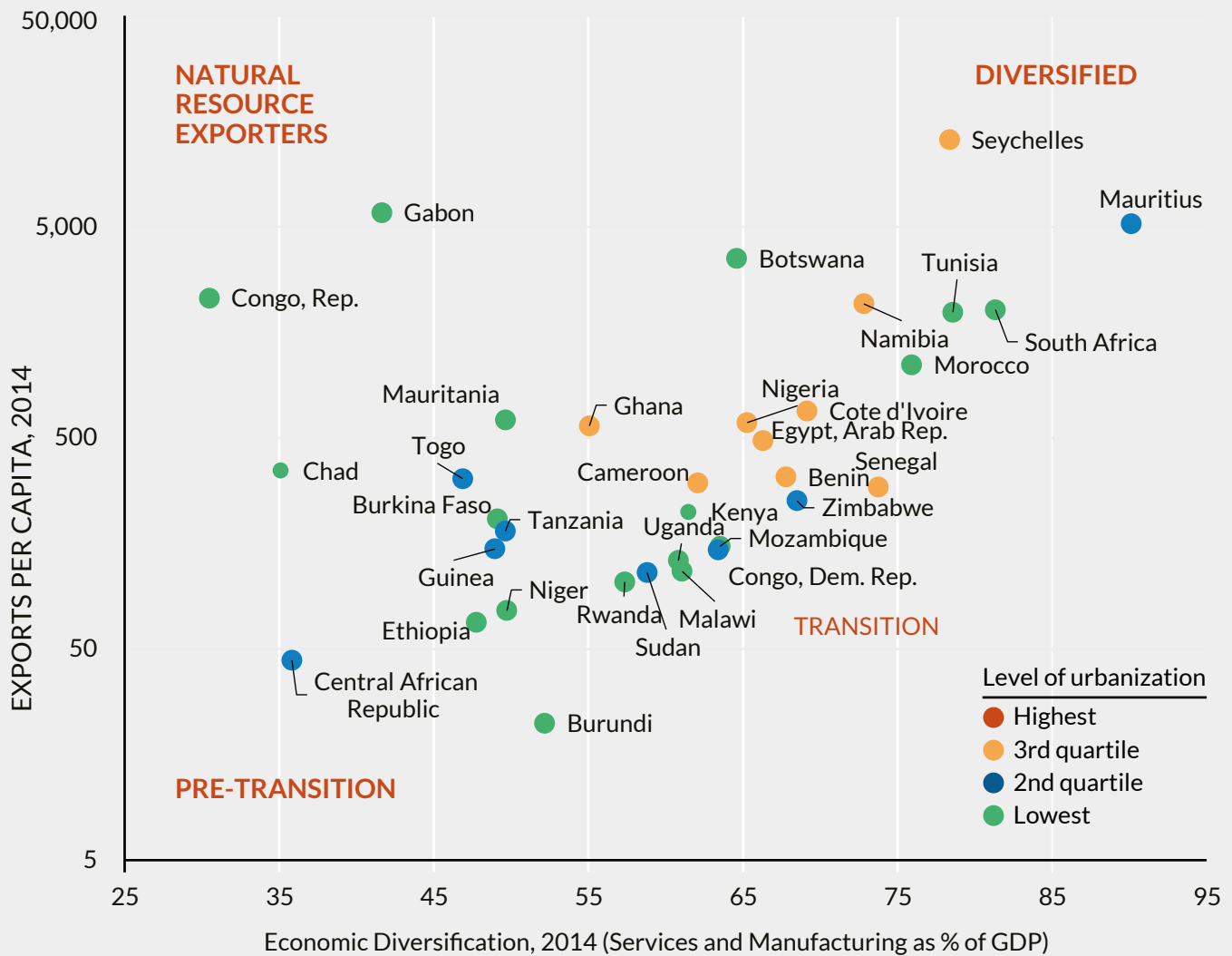
Source: World Development Indicators.

Note: Darker cells = higher values in the series. a 2014; b 2008; c Seven-year average. All other data for 2015 (or 2006–2015 for 10-year average) unless otherwise specified.

each country and its position on the urbanization–industrialization spectrum—is to consider their position in exports and economic diversification. Countries fall into four basic groups with similar development challenges: pre-transition countries, transition countries, diversified economies and natural resource exporters (figure 5.1).²

Pre-transition countries (such as Ethiopia) have an opportunity to set a trajectory for well-planned development of cities, balanced development of urban systems and diversified labour-rich industrial target sectors. They also face challenges of limited public resources, low capacities (particularly outside primary cities) and low levels of infrastructure.

FIGURE 5.1 Four basic country groups based on exports and economic diversification



Source: World Development Indicators.

Transition countries such as Cameroon, Mozambique and Rwanda tend to be early in the urbanization process but already experiencing some of the urban diseconomies. They can still channel emerging growth to invest in key infrastructure and create well placed and serviced industrial locations, linking industry to rural resources.

Foreign exchange from commodity exports can hinder the development of the job-rich tradeable sectors, but earnings from natural resources, if well invested in strategic infrastructure and services, can lay a foundation for economically productive cities.

Diversified economies (such as Côte d'Ivoire, Morocco, Nigeria and South Africa) must manage the challenges of urban growth to maximize the benefits of agglomeration economies and the continued dynamism of their cities. They face crucial trade-offs between investing limited resources, primarily in established and growing cities and industries, or attempting to balance development and industrialize lagging regions.

Natural resource exporters (including the Republic of Congo but also to some degree Côte d'Ivoire, Nigeria and Mozambique) face some of the toughest challenges. Large, export-driven consumption cities tend to have high informality and inequality, and job-poor sectors can crowd out industries that generate more jobs and more balanced development. However, these exporters also have huge opportunities to use financial resources for infrastructure investments, leverage industrial

The link between urban demand and domestic manufacturing can, however, be more difficult to develop in countries exporting natural resources.

linkages to successful export sectors and harness the power of consumption as a driver of industrial development.

The link between urban demand and domestic manufacturing can, however, be more difficult to develop in countries exporting natural resources. Natural resources present opportunities and obstacles for policymakers and can have an impact on the relationship between urbanization and industrialization, creating “consumption cities” characterized by high imports, low formal sector job creation and a predominance of low-productivity services, including informal sector services (chapter 3). Foreign exchange from commodity exports can hinder the development of other, more job-rich tradeable sectors (the Dutch disease). But earnings from natural resources, if well invested in strategic infrastructure and services, can lay a foundation for economically productive cities.

Even countries without major natural resource exports need an industrial policy to develop higher value addition to meet urban demand rather than simply exporting raw agricultural commodities. Uganda illustrates this need, which is common across Africa. It has been urbanizing without industrializing, while exporting agricultural commodities such as maize and coffee. Kampala’s rising population has found more employment in retailing and other services than in manufacturing. The informal sector dominates employment, accounting for 54 per cent of jobs and an estimated 55 per cent of enterprises employ only one person (Gollin and Haas, 2016).

Reconnecting urbanization and industrial job creation in Uganda and other countries will require urban management and industrial policy targeted to improve agricultural value added and to lift small and informal enterprises, no doubt through a combination of wider access to finance and other business services, stronger land and infrastructure policies and more training and education facilities.

Yet some opportunities are missed for fostering industrialization to meet urban demand, with imported goods assuming increasing importance (chapter 4). To take advantage of opportunities, well-implemented policies must support domestic industries and value chains to respond to rising demand.

5.2 USING URBAN DEMAND TO DRIVE INDUSTRIAL DEVELOPMENT

Industrial targets tied to urbanization can tap into Africa's rapid urban growth to develop domestic and regional markets for domestic industrial products. Africa's urbanization is in many places accompanied by a growing consumer class with more purchasing power and preferences for manufactured goods, and changing consumption patterns have already created opportunities for domestic industry. This shift is now examined as it relates to the food, housing, infrastructure and business service sectors. But first, the automotive industry is discussed (box 5.1), as an illustration of the power of urban areas in generating demand, as not every country can, or even should, specialize in that industry.

GETTING PROCESSED-FOOD CONSUMPTION TO BOOST AGRO-INDUSTRY AND FOOD RETAILING

Agricultural productivity and urbanization are twin forces. But in the globalized world, imports often leave domestic farmers out of the system. To leverage the momentum of urban demand for agricultural development, policy support is needed for agricultural productivity and chain development, including backward linkages (finance and business services for farmers) and forward linkages (transport, storage and processing).

African cities are seeing a shift towards supermarket-based food purchasing, with supermarkets holding 10 per cent of the retail market in East and Southern

Africa, and that share is predicted to rise steeply to 30–50 per cent by 2040 (Tschirley, Haggblade and Reardon, 2013; Tschirley, Reardon, Dolislager and Snyder, 2014). The transformation of food purchasing holds opportunities and risks for value chains, including the many small and medium-sized

African cities are seeing a shift towards supermarket-based food purchasing, with supermarkets holding 10 per cent of the retail market in East and Southern Africa, and that share is predicted to rise steeply to 30–50 per cent by 2040.

enterprises (SMEs) involved in transport, storage, processing and wholesale activities. Governments can improve the competitiveness of domestic supply chains by providing infrastructure, access to financial and other business services and assistance in cooperative agreements between farmers and buyers (Reardon et al., 2013; Sautier et al., 2006). Lead retailers can help upgrade the food production, transport and processing value chain with their buying power, resources and technical expertise (box 5.2), buttressed by policy action to support local job creation and pre-empt imports from meeting most urban demand.

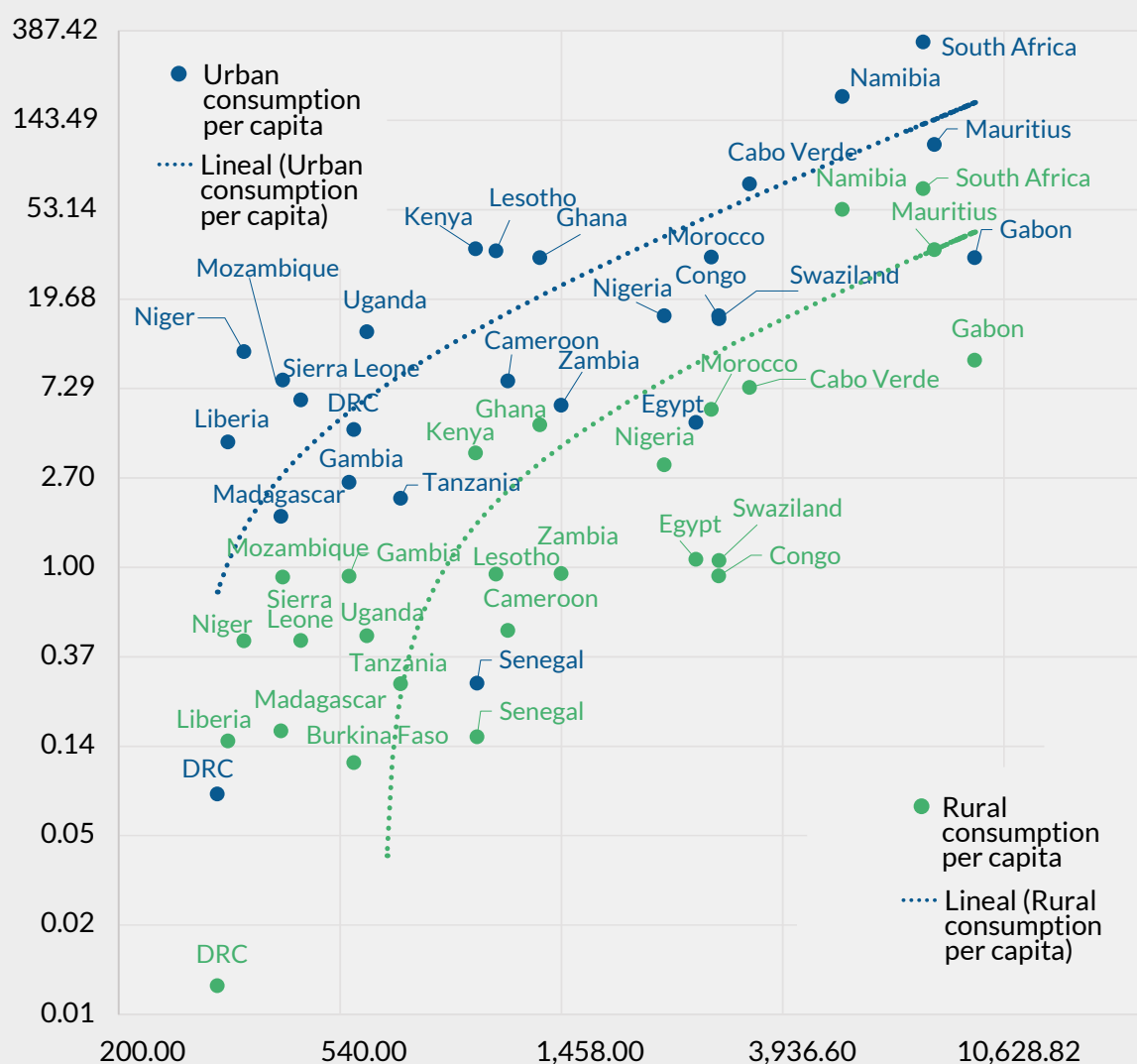
To link domestic value chains to agro-processing and foster urban–rural linkages, bottlenecks in supplier quality and skills must be eased. Development of the domestic food value chain is often hampered by the low quality of inputs. Policies should aim to raise suppliers' quality; however, marketing boards have virtually disappeared, leading to quality problems in many agricultural inputs across Africa (UNECA, 2013). Cameroon (cocoa) and Ethiopia (coffee) both produce commodities for domestic markets. Cameroon adds very little value to its exports, largely because poor growing and drying practices and bad roads lead to low-quality cocoa, loss of sellable products and late deliveries. In

Africa's urbanization is in many places accompanied by a growing consumer class with more purchasing power and preferences for manufactured goods, and changing consumption patterns have already created opportunities for domestic industry.

BOX 5.1 GRANTING POLICY SUPPORT TO THE AUTOMOTIVE SECTOR

Automobile consumption in Africa is associated with rising incomes and urbanization (box figure 5.1). With the sector's potential to meet the growing demand of the urban middle class for vehicles domestically or regionally, policies can target the sector to foster industrialization and generate learning for later entry to global value chains.

BOX FIGURE 5.1 Urban and rural consumption of motor cars by GDP per capita, 2010



BOX 5.1 CONT. GRANTING POLICY SUPPORT TO THE AUTOMOTIVE SECTOR

South Africa—the continent's leading producer—illustrates the industry's potential. Largely reflecting policies since 1995, it exported nearly 334,000 vehicles of all types and sold 284,000 domestically in 2015, alongside \$3.9 billion-worth of component exports (Lamprecht, 2016). It has 150 component companies. Gauteng, though geographically the smallest province in South Africa, has the most automotive suppliers, mainly because it offers investors business opportunities, including well-developed infrastructure. The Gauteng Growth and Development Agency, the Automotive Industry Development Centre and the Automotive Supplier Park support the industry and are charged with promoting its trade and investment and with implementing projects.

Gauteng province has created an enabling environment for the automobile industry to keep growing. These include its logistical and transport facilities (Gautrain and rapid transit system), physical and economic infrastructure, modern production-testing facilities, administrative government presence (City of Tshwane), research and development (Council for Scientific and Industrial Research) and a financial hub (City of Johannesburg). By 2012 Gauteng province accounted for 29.6 per cent of South Africa's light vehicle exports by original equipment manufacturers as a share of total exports (Automotive Industry Export Council, 2013).

An additional enabling factor is South Africa's position as a major supplier of platinum and other group metals required by the automotive industry. The country meets 12 per cent of the global demand for catalytic converters and has 70 per cent of the world's chromium used in catalysts and in producing modern auto exhausts (Automotive Industry Export Council, 2013).

One of the challenges for the country's automotive industry is to increase local content. The Industrial Policy Action Plan 2016/2017–2018/19 stipulates an increase in local content to 70 per cent or more for high-volume models and 40–50 per cent for low-volume models (Automotive Industry Export Council, 2016).

Job creation has yet to become an important policy aspect. David Kaplan, former chief economist at South Africa's Department of Trade and Industry, has remarked that “in practice, most of our industrial support favours capital-intensive activities—for example, two thirds of our industrial policy support goes to the automotive industry, which is not at all labour-intensive” (Altbeker, McKeown and Bernstein, 2012, p. 24). South Africa's current Industrial Policy Action Plan (IPAP 2016/17–2018/19) emphasizes the need to shift towards manufacturing sectors such as agro-processing and clothing (Department of Trade and Industry, 2016).

Industrial policies have also fostered a large and fast-expanding automotive industry in Morocco, including a Renault factory in the economic free zone municipality of Melloussa, near Tangiers, in 2012. The industry is now the country's largest export sector, dethroning phosphates. Automobile production is also on the rise in Algeria. Egypt has 15 car assembly plants targeting the domestic market (Oxford Business Group, 2016). And Kenya and Ethiopia have emerging vehicle assembly sectors.

BOX 5.2 CONT. POLICY TO HARNESS THE POWER OF LARGE RETAILERS IN SOUTH AFRICA'S SUPPLY CHAIN DEVELOPMENT

enable Massmart to increase and diversify its local sourcing capacity, provide a route to market to locally produced products (locally and internationally), and establish and build long-term supplier partnerships. Sales of manufacturing SMEs to Massmart, mainly involved in food and beverages (packaged juice, biscuits, baked goods and maize meal) and building materials (paint, window and door frames, and clay and cement bricks) increased from R15 million in 2012 to R70 million in 2014 (Massmart Walmart, 2015).

Across Africa, policymakers should consider the full agricultural and agri-business value chain, providing support to agricultural productivity and quality, to transport, storage and logistics, and to agro-processing industries, while ensuring broader access to business services.

Ethiopia poor coffee production is a problem, but a growers' cooperative has upgraded quality by working directly with farmers to build skills, generating exports of speciality coffees to high-income countries (UNECA, 2013).

Processing and export firms in both countries have indicated that weak government support hinders value chain development, and even when policies offer financial incentives for local processing (Ethiopia), they are ineffective owing to burdensome procedures (UNECA, 2013).

Across Africa policymakers should consider the full agricultural and agri-business value chain, providing support to agricultural productivity and quality, to transport, storage and logistics, and to agro-processing industries, while ensuring broader access to business services.

MEETING HOUSING NEEDS WITH URBAN PROGRAMMES

Morocco has had notable success in upgrading slums and relocating slum dwellers through its Cities without Slums (Villes Sans Bidonvilles) programme, declaring 54 cities to be slum free (out of an original target of 83 between 2004 and 2013) (Ibrahim, 2016). Through a three-pronged approach, the programme has moved slum dwellers to new housing (mostly apartment blocks), provided them with serviced plots to build their own homes and conducted on-site upgrading of infrastructure and services (Baverel, 2008). The programme has stimulated private construction demand by providing partial mortgage guarantees and subsidies partly funded through a new tax on cement, making

legal provision for microfinance institutions to lend for housing and bringing in \$272 million from European development partners. Tax incentives to private developers of social housing have spurred competition, boosting quality and reducing costs (Ibrahim, 2016).

In Ethiopia, the Integrated Housing Development Programme targets urban and industrial goals by increasing the supply of urban housing, while supporting the construction sector. The programme was launched in 2005 in response to rapid urbanization, high urban poverty and a severe housing shortage in urban areas.³ Households open a savings account with the programme to become eligible for housing. The funds in this account can be used for down payments on a unit (ranging from 10 per cent to 40 per cent of the unit's cost), and the balance is paid with a 20-year mortgage. New homes are allocated to beneficiaries through a lottery system where the first 30 per cent of housing goes to women.⁴ Smaller units are cross-subsidized up to 30 per cent by sales of larger units. The costs of infrastructure, land and financing are excluded from what the households pay under the programme, reflecting a public subsidy (World Bank, 2015). Between 2006 and 2010 the programme turned over 142,802 homes to households, 56 per cent in Addis Ababa (Ministry of Urban Development, Housing and Construction, 2015). Between 2010 and 2015, it built a further 90,000-plus homes there (Development Workshop, 2015).

In Ethiopia, the Integrated Housing Development Programme targets urban and industrial goals by increasing the supply of urban housing, while supporting the construction sector.

Capacity building is part of the strategy for Ethiopia's local enterprises to benefit from the resulting growth in the construction industry. By the end of the Growth and Transformation plan period of 2010/11–2014/15, 41 domestic construction contractors and 35 domestic construction consultants were qualified as internationally competitive (National Planning Commission of Federal Democratic Republic of Ethiopia (May 2016), Growth and Transformation Plan II 2015/16–2019/20; Addis Ababa). Construction of parts of

building superstructures are often reserved for micro and small enterprises, which are vetted. If they pass, they are eligible for support, including workshop facilities, access to credit, training and subsidies on machinery.

However, the Integrated Housing Development Programme is not without criticism. While its housing is less expensive than that on the private market, it is still not affordable to most of the population, leading some of the buyers in the programme to rent out their units to cover the mortgage payments. In addition, the housing blocks do not comply with basic principles of urban design as they are often grouped in single-use developments on the urban periphery, placing a steep commuting burden on residents (Croese, Cirolia and Graham, 2016; Mota, 2015).⁵ The long-term financial viability of the project is also a concern (World Bank, 2015).

TYING URBAN INFRASTRUCTURE INVESTMENT TO DOMESTIC INDUSTRY THROUGH PROCUREMENT POLICIES AND OTHER SUPPORT

Expanding public investments in urban construction and infrastructure can support domestic industry. Ghana saw growth in the construction sector through investments in the early 2000s, including public investments in low-cost housing, major road infrastructure and the West African Gas Pipeline. Construction is intended to play a key role in that country's industry-based economic growth under the current industrial policy framework (Ackah, Adjasi and Turkson, 2016). In South Africa, government spending is tied to industry through a domestic-procurement policy aiming for 75 per cent local content in public projects (IPAP 2016/17–2018/19). This target has not always been met, but local content policies for bus agencies have led to the domestic manufacture of more than 700 bus bodies (Industrial Development Corporation, 2016), alongside efforts to improve urban mobility.

In Mozambique, an explicit focus on sourcing government purchases locally has seen the fast growth of the construction sector to meet demand for investment in dams and roads (National Industrial Policy and Strategy 2015–2025). The country's 11 cement plants increased production and took market share from manufacturers of imported

cement between 2011 and 2015. However, most of these plants still source raw materials from outside Mozambique given delays in delivery of local inputs.

Expanding public investments in urban construction and infrastructure can support domestic industry. Ghana saw growth in the construction sector from public investments in the early 2000s, including public investments in low-cost housing, major road infrastructure and the West African Gas Pipeline.

In Cameroon public investments create some demand for industrial products: although domestic procurement targets are low, domestic capacity is often insufficient to meet needs, and qualification standards tend to be high for small and emerging enterprises (Kemajou et al., 2007).

Low-tech, labour-intensive infrastructure projects accessible to SMEs are a major opportunity for urban job creation. Although domestic capacity is often a barrier, lower-skilled labour-intensive technologies have high potential in some public investment sectors, including roads. Between 2005 and 2008, Ethiopia, through a cobblestone roads and pavement programme, created more than 90,000 jobs for young people, which led to the establishment of 2,000 small and medium enterprises. The project includes backward linkages to domestic inputs—cobblestones—and labour-intensive skills in quarrying, chiselling, transporting and paving. The programme, implemented in 140 towns and villages, built around 350 km of road (Asrat, 2014). The country created 845,900 jobs in housing and related projects, including cobblestones, during the planning period 2010/11–2014/15 (National Planning Commission of Ethiopia, Growth and Transformation Plan II 2015/16–2019/20).

The project is however a small segment of Ethiopia's infrastructure investment in roads. Investment in road construction in 1997–2009 lifted road density by more than 70 per cent, while the portion of roads in good and serviceable condition increased from 22 per cent to 54 per cent (Shiferaw et al., 2012).

Yet investment in infrastructure has been a growth engine for the Ethiopian economy: in 2011 the country's public investment was the third highest in the world as a share of GDP (18.6 per cent), exceeded only by Turkmenistan (38.6 per cent) and Equatorial Guinea (24.3 per cent) (World Bank, 2013a). In 2013 this figure was 20.2 per cent. The construction sector as a share of GDP jumped from 4 per cent in 2009/10 to 8.5 per cent in 2014/15 (National Planning Commission of Ethiopia, Growth and Transformation Plan II 2015/16–2019/20).

LEVERAGING URBAN-BASED BUSINESS SERVICES FOR JOBS AND INDUSTRIAL PRODUCTIVITY

Urban-based business services are another catalytic sector linked to industrial productivity and job creation.⁶ Though small, ICT is an emerging sector with strong growth and employment potential. Freelancers, many young, access the global market of e-work opportunities. Egypt, Kenya, Nigeria and South Africa are in the top 25 countries in world freelance listings. Total employment in 2013 in ICT and business process outsourcing (BPO) in Mauritius was estimated at 15,000, and the sector contributed 6.5 per cent of GDP. South Africa's BPO industry is already developed; Kenya is making headway; and similar developments are underway in other countries, including Botswana, Ghana and Senegal. Business incubators in information technology (IT) are growing across cities in Africa. Examples include MEST in Accra, Bongo Hive in Lusaka, iLab Liberia in Monrovia, Co-Creation Hub Nigeria in Lagos, ActivSpaces Cameroon in Buea and Ihub in Nairobi (Benner, 2014).

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Urban-based business services are another catalytic sector linked to industrial productivity and job creation.

For tradeable services to enhance manufacturing productivity, linkages must be in place and may not form naturally, as shown in Kenya, where service exports are relatively high but linkages to other sectors are lower than in similar countries (World Bank, 2016a). Integration of business services into the broader economy, including manufacturing, has been more successful in Rwanda (box 5.3).

Finance is a particularly important urban-based sector for SME growth. Sudan has taken steps to improve financial access, especially for industrial firms, including SMEs. As Sudan's largest city and administrative capital, Khartoum could be the hub of a growing national financial sector. The city already has high demand for financial services, with one survey indicating 1.5 million urban inhabitants are interested in microfinance loans (World Bank, 2013b). Although financial intermediation is still low, Sudan's Sharia-compliant system accounts for two-thirds of such transactions in Africa. Policy efforts in 2013 simplified the regulatory framework for financial access and new bank branches, and the central bank made preparations for mobile banking. Reforms target small enterprises, which make up 93 per cent of manufacturing firms, by requiring that commercial banks set aside 12 per cent of resources for microfinance loans (UNECA, 2015a; World Bank, 2013b). In 2014, 15.3 per cent of firms in Sudan identified finance as a major constraint, but this is less than the average for countries in North Africa (32.3 per cent) and all other subregions in Africa.⁷

BOX 5.3 RWANDA'S TRADEABLE SERVICES AS AN ENGINE OF BROAD-BASED GROWTH

Urban-based business services can benefit the entire economy and contribute to a positive investment climate, as in Rwanda, which ranks third in Africa on the World Bank's Doing Business, behind Mauritius and South Africa. It scores well partly because of the financial and ICT sectors. The business service sector in the country has been supported by investment facilitation, strong political commitment, strategy development and upgrading of the regulatory framework.

Rwanda first adopted a national IT policy in 1992, with current policies and plans focused on innovation, ICT infrastructure and exports (UNCTAD, 2014). The government has partnered with Carnegie Mellon University to establish an ICT Center for Excellence, and the College of Science and Technology at the University of Rwanda has developed several programmes in computer engineering and information technology.

The policy push on ICT has helped to increase ICT penetration, with the share of urban households owning a mobile phone rising from 26.5 per cent in 2005/06 to nearly 88 per cent in 2013/14. Over the same period the share of the urban population owning a computer went from 1.8 per cent to 12.2 per cent. ICT now contributes 2 per cent of GDP, increasing more than fourfold between 2006 and 2015 (NISR, 2015). Improvements in ICT have been linked to improvement in the overall business environment, for example, through the creation of an online business registration process. Online services have contributed to Doing Business environment classifying Rwanda's among the best places to start a business.

Similarly, Rwanda's financial services sector, driven by a strategic policy orientation set by the government, is expected to contribute to economic transformation through job creation and support to other sectors. Since 1994 the sector has grown to include 12 commercial banks, three microfinance banks, one development bank and one cooperative bank, in addition to a large number of non-bank financial institutions in insurance and pension schemes (Rwangombwa, 2016) and the nascent Rwanda capital market. Financial services in Rwanda grew from about \$94 million in 2006 to over \$256 million in 2015, accounting for 3 per cent of GDP over the period (NISR, 2016a). Financial inclusion, measured by the use of financial services, increased from 47 per cent in 2008 to 72 per cent in 2012 (MINECOFIN, 2013).

BOX TABLE 5.2 Employment growth and size of firms in Rwanda's private formal business services

	EMPLOYMENT IN 2011	EMPLOYMENT IN 2014	% GROWTH 2011-2014	% LARGE ENTERPRISES	% SMES	% MICRO ENTERPRISES
ICT	1,621	1,824	13	6	56	38
Financial services	6,343	11,195	76	3	80	17

Source: Establishment Census 2014 and Integrated Business Enterprise Survey Report 2014 (NISR, 2015; NISR, 2016a).
Note: Data on size of firms is for 2015.

New authorized loans for manufacturing activities by financial institutions operating in the country increased from RWF 20.1 billion in 2011 to RWF 51.2 billion in 2015. In construction, loans for public works and building activities amounted to RWF 237.3 billion in 2015, up from RWF 90.3 billion in 2011 (Rwangombwa, 2016).

The development of ICT sectors has been a key factor supporting related technology manufacturing. New firms include A-Link Technologies, a subsidiary of ChinaLink, which assembles relatively inexpensive Rwanda-branded mobile phones from imported materials (UNCTAD, 2014) and the South American technology firm Positivo BGH, which has opened a subsidiary in Rwanda to manufacture and sell personal computers and other electronic products in the country (Positivo BGH, 2015).

5.3 ENSURING BALANCED SYSTEMS OF CITIES

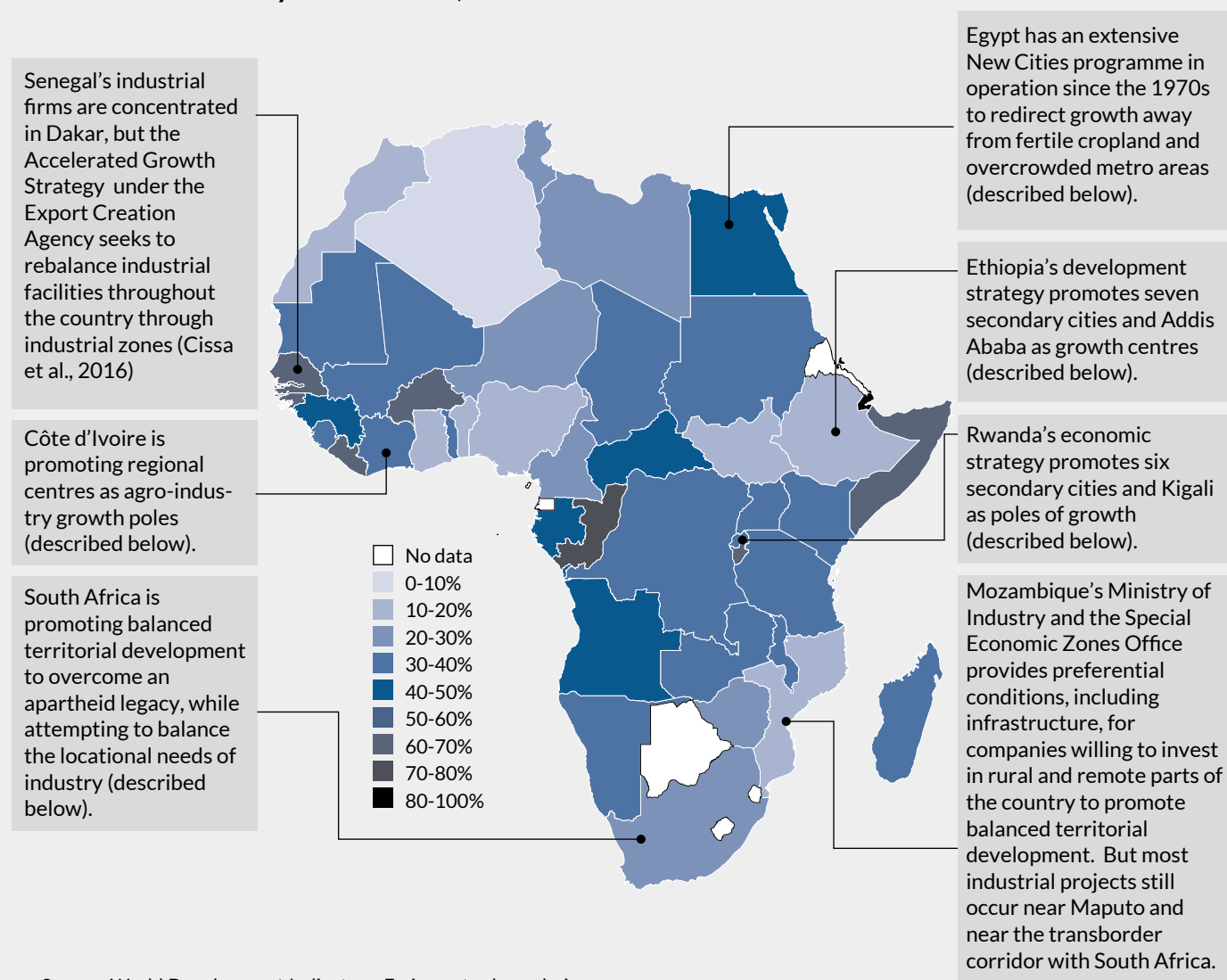
MAKING DIVERSE URBAN SYSTEMS MORE RESILIENT TO ECONOMIC CHANGE

African countries often have unbalanced national urban systems with a very large primary city and less competitive smaller cities (chapter 4). As industries weigh location options, systems with few urban alternatives deprive industrial firms of locational opportunities. In response some African countries have policies to rebalance their urban systems (figure 5.2). Yet such policies can be problematic, particularly if they neglect much-needed investments in the primary city and undermine the functionality of

that critical economic driver. Policies to develop secondary cities risk wasting scarce resources when these cities have low competitive potential (Annez and Buckley, 2009).

Managing the trade-offs requires a close look at location-based areas of comparative advantage. Secondary cities can thrive by developing a specialized set of products and leveraging linkages to rural areas and large cities. For example, Garoua, Cameroon, is a moderately sized city but a major industrial player given its large cluster of agro-processing enterprises, many of them run by women (Sautier et al., 2006). Enabling conditions include a river port that offers access to regional markets and

FIGURE 5.2 Percentage of urban population in largest city and national policies to promote urban system balance, 2015



Source: World Development Indicators; Esri country boundaries.

the surrounding fertile agricultural land. Garoua emerged organically, based on its first-nature advantages, but a raft of countries has attempted to use policy to develop secondary cities and rebalance primary-heavy systems by developing industry outside the largest city. The best strategy for balancing a system of cities depends on each country's context and opportunities. No policy prescription has yet to be a universal best practice in managing the difficult choices in regional development planning.

More balanced national urban systems offer greater opportunities and options for the location of industries. Nigeria, for example, has one of the most balanced urban systems in Africa, with seven cities with populations above 1 million and a dozen more with populations between 500,000 and 1 million. Many of Nigeria's cities existed well before colonial times as trading posts and had roles and populations that changed with the shifting economic landscape. Lagos has grown to become Africa's largest metropolis, and other coastal cities have risen in response to the petroleum industry. Abuja, planned as an administrative centre, is now an emerging manufacturing growth pole. Kano and other cities in the north have struggled with insecurity, but still play a dynamic role in industry and regional trade (Bloch et al., 2015), with Kano listed as one of McKinsey's hot spots for growth by 2025 (McKinsey Global Institute, 2012).

Policies to rebalance urban systems can be problematic if they neglect much-needed investments in the primary city and undermine the functionality of critical economic drivers.

Nigeria's industrial zones have sometimes succeeded and sometimes failed, but in spite of problems in industrial zone implementation, manufacturing firms have clustered organically, such as the computer village in Otigba, Lagos, the auto parts fabricators in Nnewi and the footwear and garment cluster in Aba (Chete et al., 2016).

The best strategy for balancing a system of cities depends on each country's context and opportunities. No policy prescription has yet to be a universal best practice in managing the difficult choices in regional development planning.

ATTEMPTING TO REBALANCE REGIONAL DEVELOPMENT

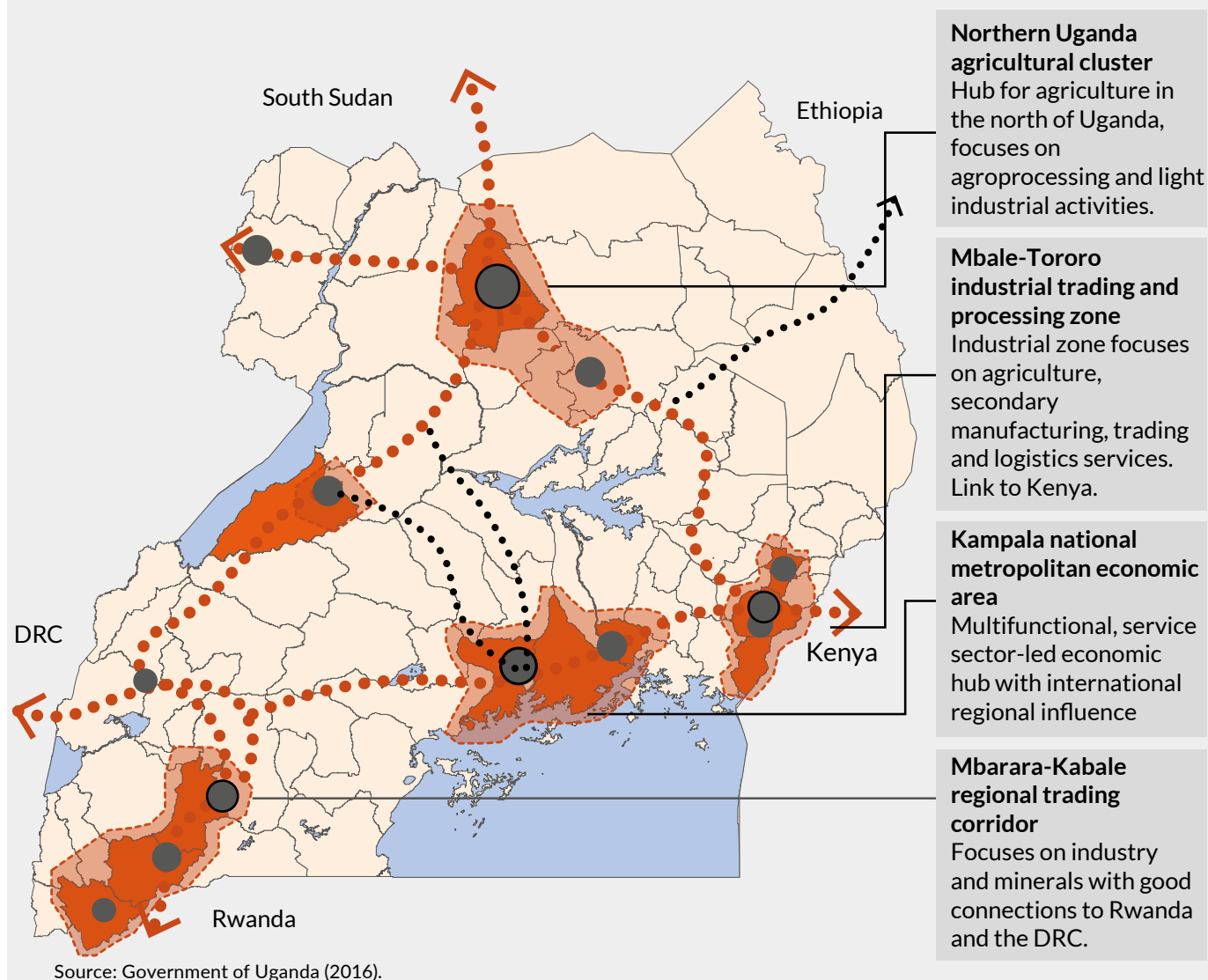
Despite urban primacy, secondary cities with a specialized industry cluster can offer the benefits of localization economies without the crowding effects of primary cities. They can also link rural commodities and markets, adding value and creating jobs. Some policies to develop secondary cities and more balanced urban systems are summarized in figure 5.2 and detailed in the text below.

NIGERIA

Working directly with target industries is one way to correctly target and support their locational needs in secondary cities. For example, Ogun State, Nigeria, has attracted a surge of industrial firms from Lagos, but initially did not have the housing for its workforce. Identified as a problem by Coleman Wires and Cables, the company built housing itself. In similar cases in Nigeria, where States have attracted companies without all the necessary infrastructure already in place, they have made agreements with firms on key investments, such as electrical lines.

UGANDA

A recent policy paper by the Government of Uganda and the New Climate Economy Partnership (2016) highlights the integrated spatial-economic approach that will inform the National Urban Plan and its implementation strategies under development, recognizing the time-limited opportunity to chart the country's development this way: "Relative to 2040, at least three quarters of the country's infrastructure, industry and urban areas are unbuilt," (p. v).

FIGURE 5.3 Compact and connected urban growth scenario, Uganda

Uganda's proposed growth plan takes into consideration the geography of regional value chains, freight routes and the differing roles of Kampala and secondary cities, identifying three "tier 1 cities" as well as Kampala for leading economic roles (figure 5.3). It lays stress on a compact and connected pattern of urban development for reducing the costs of infrastructure, increasing access to social services and limiting environmental impact. Implementation measures focus on green modes of transport within and between cities. The plan emphasizes the need to integrate economic and

spatial planning and to ensure coordination among key implementing agencies.

RWANDA

In Rwanda the national development framework has an explicit objective to set a balanced urban growth trajectory through developing secondary cities. Far from being anti-urban, Rwanda's Vision 2020, adopted in 2000, aimed for a target of 35 per cent urbanization by then, to support off-farm job creation and economic structural transformation. The government has identified six secondary cities in addition to Kigali as economic poles of sustainable and inclusive economic growth. Rwanda's secondary cities have been the focal point of initiatives to foster specialized economic activities based on existing comparative advantages. Development initiatives have included a gradual push to foster financial decentralization, establish one-stop

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Despite urban primacy, secondary cities with a specialized industry cluster can offer the benefits of localization economies without the crowding effects of primary cities. They can also link rural commodities and markets, adding value and creating jobs.

centres to support property and business permits and set up agakiro (job) centres. Each district has created a district development plan with a strategy for leveraging its potential, aligned with national policies.

Several secondary cities promote industrial development as an area of comparative advantage. For example, Huye, endowed with rich soil, has an expanding agri-business sector, supported by the National Institute of Scientific Research, National University of Rwanda and local seed research laboratories. In Nyagatare, granite quarries provide inputs for building materials. The East African Granite Industries, the largest player in the district's quarrying and granite processing, produces tiles, kitchen and bath counter tops and other building supplies for local and regional markets. Rubavu, too, has leveraged natural advantages for development, drawing on Lake Kivu's vast deposits of methane and carbon dioxide gases for power generation. A \$200 million project is run by the US firm Contour Global to extract the methane and provide up to 100 megawatts of electricity.

The economic geography of the urban system is woven throughout Rwanda's development vision. Secondary cities are only one component of the country's urban and rural hierarchy, which includes district towns, urban subcentres, trading centres and umudugudu (villages), each with policy directives for achieving inclusive and growth-generating urban growth (Urban Planning Code, 2015). Further strategies to guide urbanization are in the recently approved National Urbanization Policy (2016). Rwanda's secondary cities still face obstacles to economic competitiveness, including shortage of skilled workers, lower capacity among local government staff and infrastructure deficits.

ETHIOPIA

Ethiopia's urban policies also focus on promoting planned secondary city development in advance of urbanization, largely as industrial enterprises are relatively clustered: in 2009/10 Addis Ababa had 11 times the number of manufacturing enterprises of the second city on this metric, Awassa (Gebreyesus, 2016). Addis has in recent years seen major physical transformation through public and private investment in infrastructure and housing, but there is still much catch-up investment required for the city to overcome barriers to industry and business. Along with enabling Addis to leverage its competitive potential as a primary city, Ethiopia's urban strategy identifies seven geographically dispersed cities as future growth centres for balanced growth. It aims for these cities to draw on the diverse economic potential of their regions and sustain the country's rapid economic growth.

Road and railway links connecting secondary cities to each other and to their surrounding rural areas form a central plank for developing regional growth poles. During the first decade of this century, Ethiopia allocated 3 per cent of GDP to investment in roads, bringing the quality of the trunk network up to the level of other low-income countries in Africa (Foster and Morella, 2010). The Addis Ababa–Djibouti railway line was completed in late 2016 and inaugurated in January 2017. With 53 per cent of

Ethiopia's urban policies focus on promoting planned secondary city development in advance of urbanization, largely because industrial enterprises are relatively clustered.

the tracks replaced and with a maximum speed of 160 km an hour for passenger trains and 120 km an hour for cargo trains, the railway cuts travel time by two-thirds.⁸ Against the \$42.8 per ton of freight cost by road, the railway is expected to cost \$15.3–35.6 per ton.⁹

A related strategy is establishing industrial parks with accessible infrastructure and one-stop service centres and granting tax exemptions for investors. Each park is centred on a targeted industrial cluster, such as textiles, and located to access urban labour

in and around the city. There are industrial parks around Addis Ababa and Hawassa, and others are planned, including those for Adama, Arerti, Debre Berhan, Kombolcha, Dire Dawa and Mekelle (Ethiopian Investment Commission, 2016a). The Hawassa park as of 2016 had attracted 15 global apparel and textile companies (Ethiopian Investment Commission, 2016b), with an agreement to recruit and train 30,000 textile workers (Industrial Parks Development Corporation, 2016). Initial results of Ethiopia's balanced development policies seem positive. The strategy also includes establishing Integrated Agro Industrial Parks, which will focus on promoting agro-processing for domestic and export markets by clustering related firms and by enabling them to access infrastructure and extension services, and ultimately benefit from economies of scale in market transactions.

CÔTE D'IVOIRE

The country's National Development Plan (2016–2020) advances the theme of competitive cities by promoting more balanced development across

Côte d'Ivoire's National Development Plan identifies some secondary cities as regional growth poles based on value-added industries linked to agricultural products.

the country, reviving pre-conflict comparative advantages based on agro-climatic conditions and reducing congestion in Abidjan. It identifies some secondary cities as regional growth poles based on value-added industries linked to agricultural products. Policies to support agro-industrial development include setting up technical training centres and research centres in the growth poles. Former policies to relieve pressure on Abidjan have had some success through infrastructure provision: the rapid growth of San-Pédro—on the coast 340 km from Abidjan—is tied to the construction of a deep-water port for exporting cocoa and cocoa products.

BOX 5.4 NEW CITIES IN EGYPT, KENYA AND SOUTH AFRICA

In Egypt, crowding in urban centres, particularly greater Cairo and Alexandria, as well as urban expansion onto precious agricultural land, led the government to develop a New Cities programme from 1977, establishing 22 cities. Most new cities have fallen into one of three categories: primarily residential satellite cities around Cairo; twin cities intended to have an economic base but connected to an existing smaller city; and independent cities, some intended to have an industrial base.

Egypt's first generation of new cities, built between 1977 and 1982, were primarily independent cities, and by 2014 achieved 18.4 per cent of their original population targets (2 million of 11 million). The second generation, built between 1986 and 1997, were built as satellite or twin cities and achieved 23 per cent of their intended population targets (2 million of 9 million). The third generation, built as twin cities primarily in 1999 and 2000, have reached only 2.2 per cent of targets, with five of seven cities in 2014 still uninhabited. Challenges to implementation have included highly centralized governance, lack of coordination or conflicting development priorities between central agencies and difficulties in distribution of land (UN-Habitat, 2015). Despite this, the government is moving forward with plans to create a new capital city in the desert east of Cairo with a target of 1.75 million permanent jobs and 1.1 million residential units (The Capital, 2015).

Kenya also has ambitions of creating a new city outside its capital, Nairobi, called Konza Techno City, with the vision to become "Africa's Silicon Savannah." Design plans were released in 2013 but construction is still at an early stage, and developers have expressed concerns about transport and electricity infrastructure, as well as land speculation (Ochieng, 2016).

South Africa announced plans for a new city called Vaal River in Sedibeng district, just south of Johannesburg, described as "South Africa's first post-apartheid city" and costing potentially \$800 million. This large investment is intended to help create a new economy for a region hurt by the collapse of the steel industry. But since the project's announcement in May 2015, environmental issues have delayed the start of construction (le Cordeur, 2015; Sedibeng Ster, 2016). The competing need for infrastructure maintenance and investments to manage economic challenges in other parts of Gauteng province, including major economic and industrial growth poles, have caused some to question the large planned expenditures in lagging areas.

REPUBLIC OF CONGO

A functional urban system requires good urban-rural and regional linkages. One report finds that “increasing the amount of roads per square kilometre of national land or the amount of navigable inland waterways per square kilometre, *ceteris paribus*, by one standard deviation reduces urban primacy by 10 per cent” (Nallari, Griffith and Yusuf, 2012). Exploiting such advantages, the Republic of Congo—where two specialized cities account for the vast majority of the urban population—is upgrading its roads. The cities are Brazzaville, the political and administrative centre, and Pointe Noire, the commercial and industrial centre with an urban economy based on offshore petroleum reserves.

A recently completed major highway linking the two urban centres, which also connects smaller towns and villages, will support economic complementarities. An infrastructure gap remains, however, between the agricultural sector and the urban centres. Given that agricultural products form the second-largest import category and the high demand for agricultural projects in neighbouring countries, investing more in infrastructure and facilitating the food value chain are needed to boost linkages to the agro-processing sector.

EGYPT, KENYA AND SOUTH AFRICA

The urban dysfunction of large cities has led some governments to propose new cities as an alternative (box 5.4). But there is a threshold for smaller cities to become competitive, which may require a larger population or more investments than feasible (Gelb, Tata, Ramachandran and Rossignol, 2015; O’Sullivan, 2007). They may also be beset by the institutional issues affecting existing cities.

FOSTERING SPATIALLY EQUITABLE DEVELOPMENT—BETTER IN THEORY THAN IN PRACTICE

Balanced territorial development, including industrializing lagging areas, is a strategy to reduce inequality and improve broad-based job growth. But it is not always compatible with the locational requirements of industry. This tricky trade-off is brought to light by South Africa, where policy is attempting to address the legacy of apartheid’s spatial and economic planning. As the National

The urban dysfunction of large cities has led some governments to propose new cities as an alternative. But there is a threshold for smaller cities to become competitive, which may require a larger population or more investments than feasible.

Development Plan sums up: “Where we live and work matters. Apartheid planning consigned the majority of South Africans to places far away from work, where services could not be sustained and where it was difficult to access the benefits of society and participate in the economy.... The inefficiencies and inequities in South Africa’s settlement patterns are deeply entrenched. Bold measures are needed to reshape them” (p. 233).

In accord with the National Development Plan, South Africa’s Industrial Policy aims to promote industrial decentralization through SEZs to foster improved equity in marginalized areas. This is reflected in the current Industrial Policy Action Plan (2016/17–2018/19), which recommends pursuing the Cluster Development Program begun in 2015 by revitalizing old state-owned industrial parks in lagging regions, including townships (historically segregated urban areas) and rural areas. However, the challenges listed in the policy include “limited access to markets, ...limited knowledge about strategy, lagging incorporation and use of technology, [and] limited knowledge on the effect of cluster development” (p. 63). The Cluster Development Programme makes available a grant of up to R10 million (\$781,000) to clusters of five or more companies engaged in value chain development with support provided for improved collaboration, shared infrastructure and supplier development.

A roundtable meeting organized by South Africa’s Centre for Development and Enterprise in November 2011 to review that country’s experience with industrial development zones concluded that they had failed to achieve the desired employment and economic impacts, noting that SEZs “are badly suited to uplifting poor regions” (Altbeker, McKeown and Bernstein, 2012, p. 4). This sentiment is reflected in a review of Africa’s experience with SEZs, which

concludes that “despite long-standing evidence to the contrary, governments try (and usually fail) to use zones as regional development tools. Almost all the countries under study located at least one zone in a lagging or remote region, but few have done enough to address the infrastructure connectivity, labor skills and supply access these regions lack. Not surprisingly, FDI shuns these locations in favor of agglomerations where they can access quality infrastructure, deep labor markets and knowledge spillovers” (Farole, 2011, p. 11). (And see box 4.3.)

SECURING CROSS-BORDER URBAN OPPORTUNITIES WITH THE RIGHT TRANSPORT AND LOGISTICS INFRASTRUCTURE

Regional integration offers opportunities for leveraging urbanization for industrial demand, including across borders. Infrastructure, particularly in transportation and logistics, is critical for linking regional cities and zones of industrial production.

Rwanda’s sluggish manufacturing sector growth has not kept pace with overall economic growth, in part due to the service-led growth strategy pursued by the government (see box 5.3). But manufacturing is important for job-rich development (see chapter 3). The country’s small size and low income mean that domestic markets are not large, but regional integration offers opportunities. For a land-locked country, infrastructure is an important component of regional integration. According to the African Regional Integration Index, Rwanda scores moderately on infrastructure integration (table 5.2). It has just joined the Economic Community of Central African States (ECCAS), which will provide

large opportunities, particularly as ECCAS countries are major importers of food products, many of which come from Europe and South Africa at high prices. Merchandise exports could expand by 7.8 per cent under a strategy to manufacture exports for ECCAS markets (UNECA, 2015b).

One opportunity for regional integration in Rwanda is the subnational economy of Gisenyi, a secondary city that shares a border with the much larger city of Goma, Democratic Republic of Congo. The cities already have a shared economy in which 25 per cent of the residents of Gisenyi work in Goma. Gisenyi could better serve Goma’s larger consumer market with improved cold storage facilities near the border or investments in a lake port in Kivu. Such infrastructure could also improve access to production inputs, cited as a barrier by Rwandan manufacturers (MINICOM, 2011).

Regional integration offers opportunities for leveraging urbanization for industrial demand including across borders.

On the other side of the Democratic Republic of Congo, the Republic of Congo has potential comparative advantages that could help it meet the larger cross-border demand for goods. Brazzaville has a particular advantage given its proximity to Kinshasa (just across the river), suggesting potential benefits to improving the border crossing: this takes the average citizen 2.5 hours because of administrative hurdles, despite a ferry ride lasting only five minutes.

TABLE 5.2 Rwanda’s scores and ranks on African Regional Integration Index, 2016

	EAST AFRICAN COMMUNITY		ECONOMIC COMMUNITY OF CENTRAL AFRICAN STATES	
	SCORE (SCALE OF 0–1)	RANK (OUT OF 5)	SCORE (SCALE OF 0–1)	RANK (OUT OF 11)
Overall	0.553	3	0.485	6
Regional infrastructure	0.366	4	0.416	6

Source: AU, AfDB and UNECA (2016).

5.4 OVERCOMING BARRIERS TO AGGLOMERATION ECONOMIES WITHIN CITIES

The power of agglomeration economies gives large cities a major productive advantage. Firms in cities have better access to labour, markets, inputs and knowledge. But many large cities in Africa are underperforming, with the potential of agglomeration economies undercut by poorly functioning land and property markets, inadequate mobility options and disconnected and sprawling urban forms including residential segregation.

The power of agglomeration economies gives large cities a major productive advantage. Firms in cities have better access to labour, markets, inputs and knowledge.

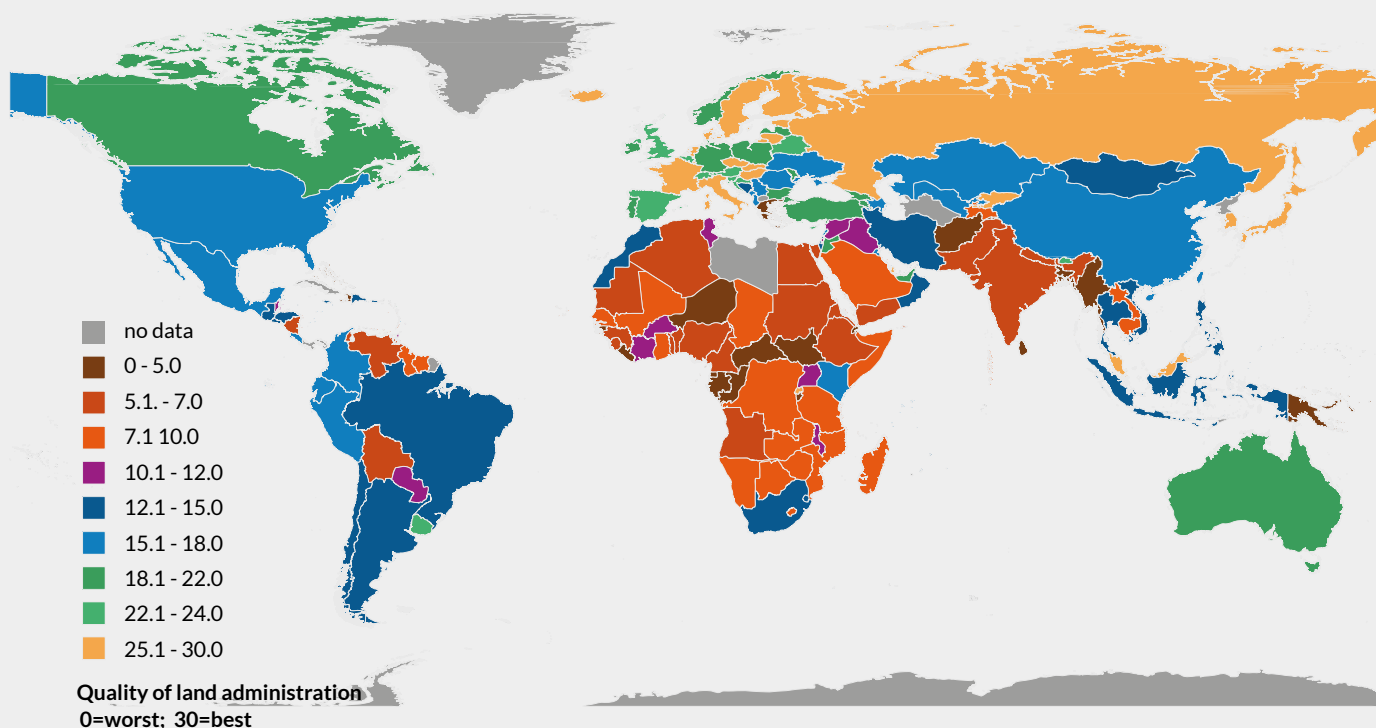
CITY COMPETITIVENESS AND INDUSTRIAL DEVELOPMENT HIT BY WEAK LAND AND PROPERTY MARKETS

The poor functioning of land and real estate markets poses fundamental challenges to cities, undercutting economies of agglomeration and undermining basic urban functions. African countries often score particularly low on the Quality of Land Administration Index, relative to other regions

(figure 5.4), putting Africa's cities at a competitive disadvantage.

Land is a cross-cutting issue for economic competitiveness: "In all [studied] countries there is a lack of a clear process for making land available for development and much of the urbanization and industrialization that is occurring is happening in the informal sector" (Roberts, 2014). Poorly functioning land markets lead to a disconnect between the productive potential of a city and the cost of land

FIGURE 5.4 Quality of land administration index, 2016



Source: Based on World Bank (2016b).

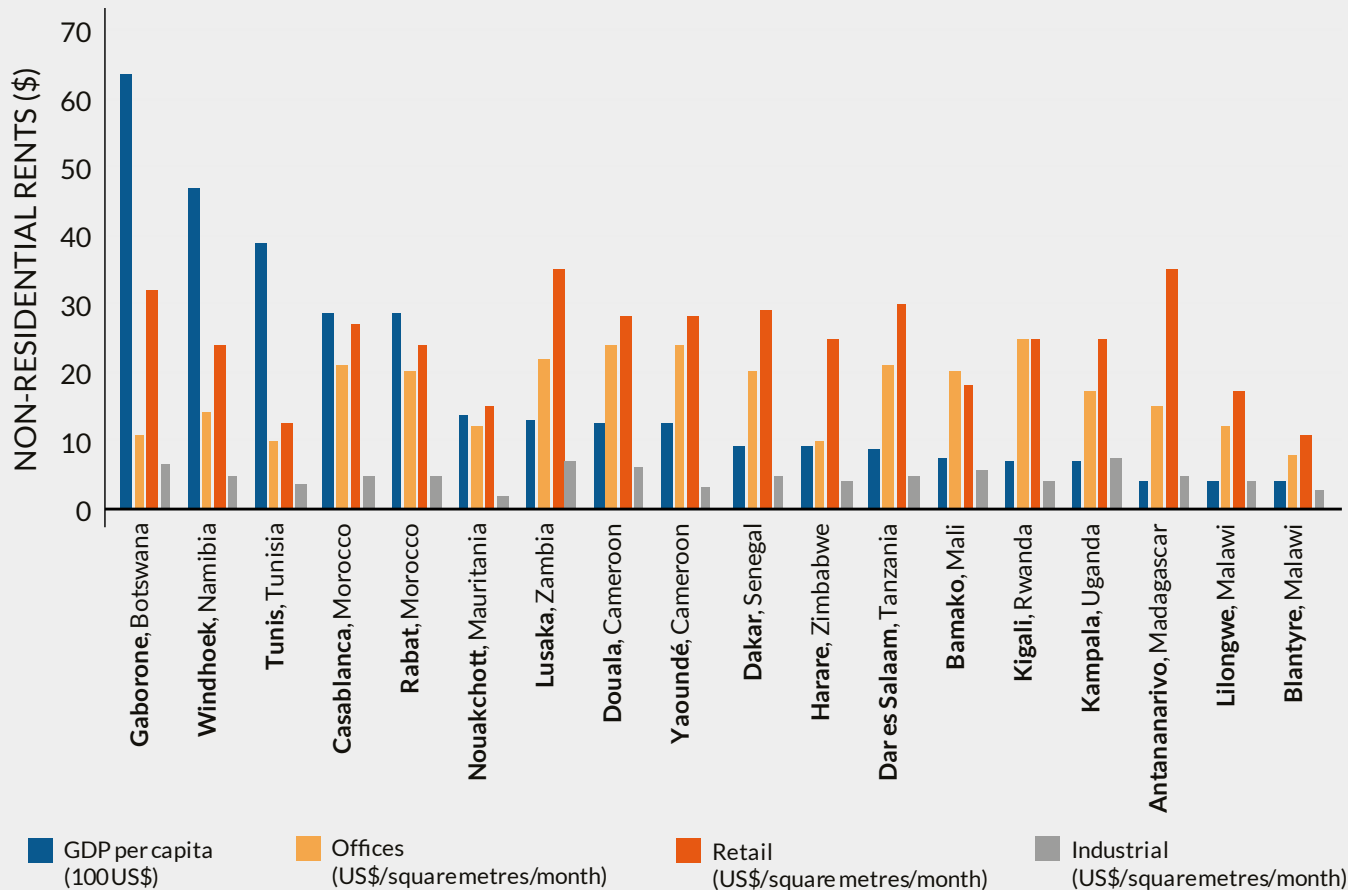
there. For instance, the cost of non-residential land is not necessarily correlated with GDP per capita in Africa’s cities, with cities such as Tunis and Nouakchott with lower rents relative to per capita GDP and cities like Lusaka and Dakar with higher rents (figure 5.5).

Land is often tied to political power, making reform difficult. In Nairobi some of Africa’s largest and worst slums are entrenched, despite the fact that the UN agency created to solve such issues globally (UN-Habitat) has been headquartered in the city since 1996. Land tenure disputes have been at the root of violent conflicts in many of Africa’s cities and stand directly in the way of industrial development. In Addis Ababa conflict over land has prevented the implementation of spatial and industrial plans and created economic instability. In Nigeria land conflicts have presented problems for establishing industrial zones. Ogidigben Gas City is one example, with long delays due to longstanding violent conflict between ethnic groups involved in the land slated for the zone (Onabu, 2015; Blyth, 2015).

Poorly functioning land markets lead to a disconnect between the productive potential of a city and the cost of land. For instance, the cost of non-residential land is not necessarily correlated with GDP per capita in Africa’s cities.

Tenure regularization efforts in Africa have had mostly mixed results, particularly when social equity is considered. There have been cases with positive impacts on women and the poor when they are directly considered in the regularization process. But, there are other cases where market pressures on newly titled areas have led to displacement of the poor and formation of new slums (Payne et al., 2015). In Uganda tenure reforms were undermined

FIGURE 5.5 Non-residential rents in selected cities, 2015



Source: Knight Frank (2015); World Development Indicators.
Note: By descending order of per capita GDP.

BOX 5.5 COST-EFFECTIVE AND FAIR TENURE REGULARIZATION IN RWANDA

Rwanda has proven that large-scale land regularization is financially and administratively feasible. Following the Land Policy in 2004, a Land Tenure Regularization Programme identified and registered 8.4 million plots, with a trial period in 2008–2010 and full scaling up in 2010–2013 (Ministry of Infrastructure, 2015). The programme employed 110,000 Rwandans, with 99 per cent working in their own communities, while keeping the cost per title at approximately \$7, which is extremely low for such programmes (DAI, n.d.). As of 2014, 81 per cent of identified plots had been approved for titling (freehold and leasehold) with only 0.1 per cent of the remaining unregistered parcels with unresolved disputes (Gillingham and Buckle, 2014).

The programme has improved gender equity through regulations and education resulting in the inclusion of married women's names on plots and enhanced gender parity in inheritance rights (Ali, Deininger and Goldstein, 2013); 92 per cent of registered plots now include the name of a woman (DAI, n.d.).

The full impact on urban and economic development has yet to be evaluated. One study on peri-urban Kigali reports that 72 per cent of landholders have incentives to build or to transfer land as the situation has regularized (Fosudo, 2014), perhaps benefiting agricultural production in rural areas, where land ownership is highly fragmented. Tenure regularization has also sped urban development, ironically causing some concern that it is contributing to sprawl and the loss of scarce agricultural land (Ministry of Infrastructure, 2015). Rwanda's new land use regulations to protect the most productive agricultural areas are still being rolled out (Ministry of Infrastructure, 2015).

by mistrust of the government (World Bank, 2009), and in Cameroon moving from customary land holdings to formalized titles created openings for corruption and for disenfranchising vulnerable populations (Njoh, 2013). Rwanda's comprehensive land regularization programme is one success (box 5.5).

Deficiency in land management also has a bearing on municipal revenues. Lack of up-to-date cadastres and valuation mechanisms for land and property impedes cities from realizing local revenues. A study of municipalities in Mozambique showed that property taxes there, where all land is owned by the government, amounted to 18 per cent of local revenues (against half of subnational revenues in countries in the Organisation for

Economic Co-operation and Development). The underperformance of land leases in Mozambique stems from poor performance in assessment, coverage and collection.

AGGLOMERATION ECONOMIES, INCLUDING INDUSTRIAL ACCESS TO LABOUR, HURT BY POOR MOBILITY

Agglomeration economies are undercut by poor connectivity and poor urban mobility. The inability of people to move easily through cities shrinks opportunities for labour pooling and knowledge sharing, which is critical for firm productivity. One study has revealed that the productivity gap in Kenya's industrial sector is higher than in India or China, with the productivity differential between firms at the 80th and 20th percentile three times that in India and more than four times that in China (World Bank 2016).

Insufficient, poorly planned and disconnected road space alongside increasing motorization has led to choking levels of congestion in many cities. Road investments are often skewed towards highways and ring roads rather than urban connectivity, leading to only temporary relief as excess road space is quickly filled up by more drivers and as

Tenure regularization efforts in Africa have had only mixed results, particularly when social equity is considered. There have been cases with positive impacts on women and the poor when they are directly considered in the regularization process.

cities de-densify in response to new peripheral connections. Transport investments in pedestrian infrastructure and transit are minuscule compared with the needs of users relying on these modes. Common barriers to bicycling and walking in seven select cities are in table 5.3.

Several African governments are placing new emphasis on non-motorized modes and transit, including bus rapid transit (BRT). The idea is to offer the feel and benefits of rail (which competes better with driving than most other transit) but at the cost of a bus system. Critical to a competitive BRT system are speed, low wait times, reliability and comfort. A BRT system is less costly than rail in part because it can share existing infrastructure (roads), and does not require a new set of right-of-way, or a rail system. But to give BRT a competitive advantage over single-occupancy vehicles, and thus encourage a shift to transit, a BRT system should have bus-only lanes and priority at signals (or other mechanisms).

Lagos launched a BRT system in 2008 connecting Lagos island to the mainland, reducing travel times

Agglomeration economies are undercut by poor connectivity and poor urban mobility. The inability of people to move easily through cities shrinks opportunities for labour pooling and knowledge sharing, which is critical for firm productivity.

by 25 minutes. It now carries one-quarter of the corridor's travellers; employs 2,000 people as drivers, conductors, ticket sellers and mechanics; and has created 10,000 indirect jobs through park-and-ride facilities and food services (Peltier-Thiberge, 2015). Johannesburg was another early implementer of BRT, establishing the Rea Vaya system in 2009 as a link between industrial jobs and residential areas. Other South African cities have since developed BRT systems under the national Public Transport Strategy (South African Government, 2014). Cairo, Dar es Salaam and Kampala are building BRT systems.

TABLE 5.3 Major barriers to non-motorized transport in selected African cities, 2016

CITY	WALKING	BICYCLING
Abidjan, Côte d'Ivoire	Danger from vehicle traffic	Climate, lack of bicycle infrastructure, difficulty obtaining a bicycle, danger from vehicle traffic, long travel distances, long bridges with fast traffic
Addis Ababa, Ethiopia	Poor road quality, danger from vehicle traffic	Lack of bicycle infrastructure, danger from vehicle traffic
Khartoum, Sudan	Climate, long travel distances, vendors and other blockages in pedestrian areas	Climate, lack of bicycle infrastructure, road quality
Kigali, Rwanda	Hilly terrain, long travel distances	Hilly terrain, lack of bicycle infrastructure, danger from vehicle traffic
Lagos, Nigeria	Danger from vehicle traffic, long travel distances	Lack of bicycle infrastructure, poor road quality, danger from vehicle traffic, long travel distances, cultural barriers
Nairobi, Kenya	Poor road quality, danger from vehicle traffic, long travel distances, fear of crime, crowded pavements	Lack of bicycle infrastructure, poor road quality, danger from vehicle traffic
Tangier, Morocco	None. Occasional barriers include lack of pedestrian infrastructure, poor road quality, danger from vehicles, vendors and other blockages in pedestrian areas	Lack of bicycle infrastructure, danger from vehicle traffic

Source: Authors and contributors.

Even non-BRT systems can improve transit service. In Rwanda, Kigali's 2013 Transportation Master Plan introduced a system with buses circulating on predetermined routes and scheduled services. Nearly 85 per cent of people in Kigali City reported that they were satisfied with the public transport quality in 2013/14 (NISR, 2016b).

The separation of uses contributes to low density and disconnected development, making infrastructure provision more costly and increasing travel distances.

DISCONNECTED, LOW-DENSITY AND SINGLE-USE URBAN FORM—OFTEN A RELIC OF COLONIAL OR APARTHEID REGIMES

Restrictive zoning—frequently a hangover from colonial codes—and modern counterparts are sometimes at fault for disconnected cities. In many of Cameroon's cities, older codes still separate land uses and housing types, and limit density. Strict building codes and long permitting processes drive prices up and restrict the supply of formal housing. The separation of uses contributes to low density and disconnected development, making infrastructure provision more costly and increasing travel distances, which takes a particular toll on women, who are vulnerable to crime while traveling and when staying at home in isolated neighbourhoods (Njoh, 2000).

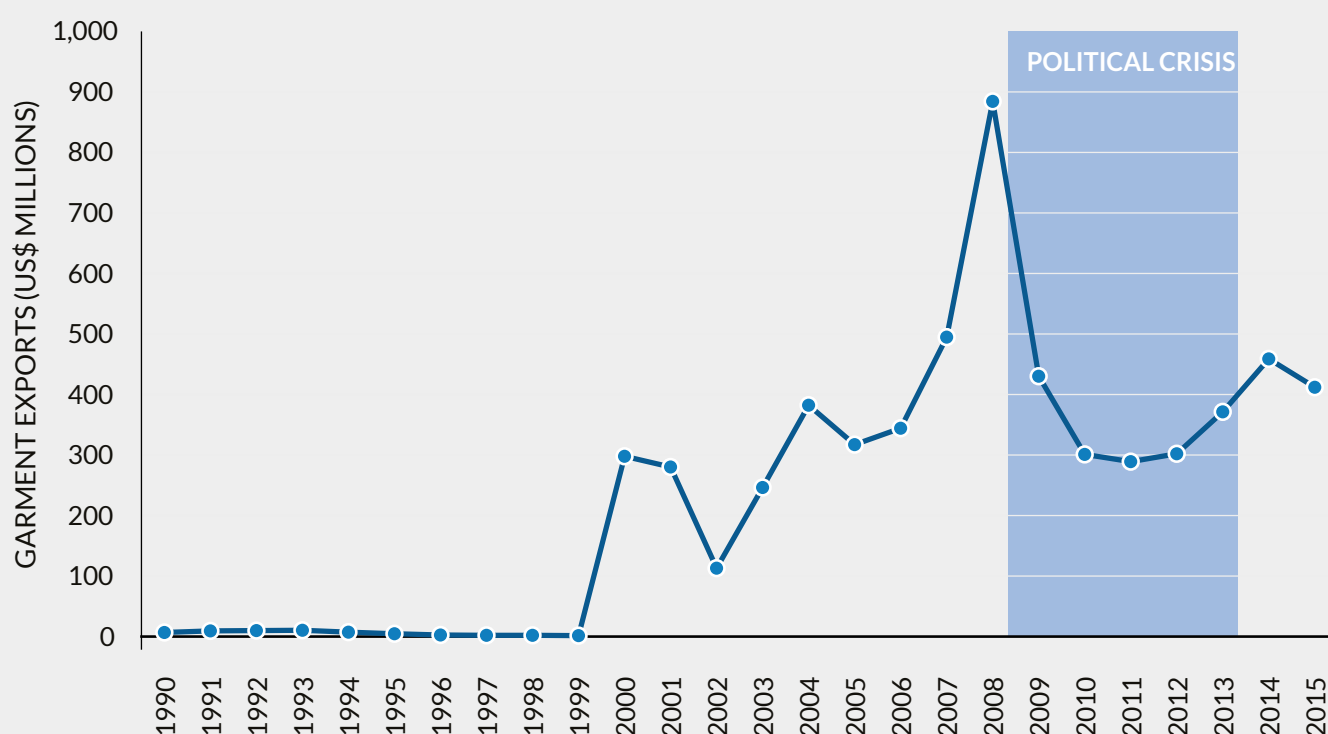
In addition, the requirements for imported building materials instead of those locally available reduce opportunities in the domestic building materials sector, and regulations for building techniques cut women out of the shelter production process.

Reintegrating divided cities is not easy. Decentralized spatial planning in Johannesburg, South Africa, for example, has had mixed results (box 5.6).

CONNECTING SPECIAL ECONOMIC ZONES TO THE BENEFITS OF AGGLOMERATION

Special economic zones are a way to create pockets industrial competitiveness. At their best, they can contribute to improving the business environment

FIGURE 5.6 Value of garment exports, Madagascar, 1990–2015



Source: UN Comtrade database.

BOX 5.6 JOHANNESBURG’S STRUGGLE TO OVERCOME THE SPATIAL JOBS-EMPLOYMENT MISMATCH

Apartheid spatial planning has left South Africa’s cities with a legacy of division: “To varying degrees, each town or city in South Africa reflects not only an unequal distribution of infrastructure, amenities and accessibility, but the distances between the places in which the poor and the well-off live exacerbate that inequality. They also make for an inefficient spatial pattern, with the costs of installing and maintaining infrastructure unusually high and public transport difficult to provide” (Berrisford, 2011, p. 249).

Johannesburg faces spatial fragmentation, which has separated people from jobs. Access to labour is a major constraint on industrial development in South Africa in general (Altbeker, McKeown and Bernstein, 2012). Some 40 per cent of Johannesburg’s population is in Soweto, to the south-west, while the vast majority of formal sector jobs are to the north. The mining belt, which stretches east-west between the two, presents a major transport barrier between jobs and housing due to the apartheid planning of the city, which intentionally housed the black population downwind from the mines and separated from the heart of the city.

The Inner City, the traditional downtown, is declining economically as major corporation cluster in Sandton, a new central businesses district to the north. Gated communities are also expanding to the north, including a massive billion-dollar housing development called

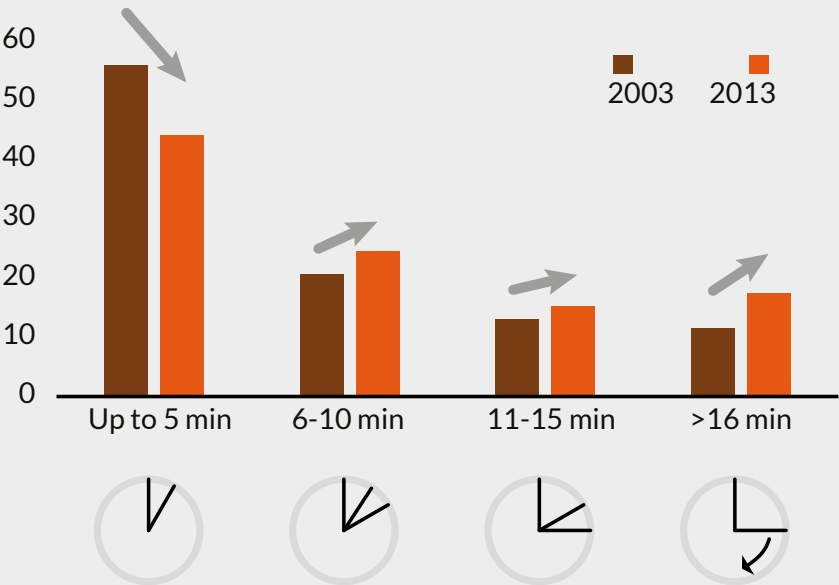
Waterfall Estate (Steyn, 2016). Such developments make it clear that income segregation has yet to be abolished after apartheid.

City leaders have attempted to overcome these divisive spatial legacies. A BRT system, which opened in 2009 and is still expanding, connects Soweto to jobs in the north and quickly developed significant ridership, despite intermittent service delays. Yet the density of economic activity and land use have still to respond to the pull of the BRT corridor, with walking times to public transport actually increasing between 2003 and 2013 (box figure 5.2), and travel by bus still averages 92 minutes for the typical commuter in Gauteng province (Statistics South Africa, 2014).

The city’s new Spatial Development Framework, adopted in June 2016, prioritizes nodal development around the central transport corridors and policies to reconnect the city to achieve a more compact and inclusive urban fabric. If successful, it will also improve livability.

Johannesburg had formerly prioritized neighbourhood investments in marginalized areas with the goal of rebalancing spatial inequalities, but such strategies have not had a high return on investment in tax revenues, and the city is close to its debt limits. It has recently had to shift its strategy to pursue major investments only in areas of high return.

BOX FIGURE 5.2 Walking time to public transport by workers in Gauteng Province, 2003 and 2013



Source: Statistics South Africa (2014).

in the economy as a whole, through knowledge transfer and skills upgrading. This was the case in Mauritius. Its SEZ programme, initiated in 1970, led to skill and policy upgrades and played a role in structurally transforming the economy, partly because preferential policies were applied to qualifying firms independent of location, allowing them to select a location matching their spatial preferences and simultaneously broadening the reform of policies affecting the business climate (Altbeker, McKeown and Bernstein, 2012).

SEZs cannot, however, fully insulate industry from macroeconomic problems, as in Madagascar, where SEZs in place since 1989, have suffered as a result of poor overall business climate and weak institutional and policy coordination. A period of political crisis in 2009–2013 undermined progress in the garment sector (figure 5.6). And eligibility for the United States African Growth and Opportunity Act was removed for 2009–2014, prompting the departure of Asian firms (Morris, Staritz and Plank, 2014).

A World Bank project to support the garment industry in Antananarivo during this time was undermined by political instability and corruption related to land registries (Gelb et al., 2015). It is not yet clear whether the industry has begun to recover since the return to democracy in 2014 (see figure 5.6). As the global garment industry has become more vertically integrated, Madagascar's remaining enterprises have struggled to develop backward linkages, in part due to a lack of government support (Morris, Staritz and Plank, 2014). And SEZs have not fostered industrial spillovers beyond Antananarivo, as originally hoped.

The location of SEZs should connect industries with skilled labour force. Knowledge spillovers can

SEZs are more likely to benefit from agglomeration economies if they are well located as demonstrated by successful automotive SEZs in South Africa.

go both ways, with cities benefiting from training and skilled workers from SEZs and vice versa. In the Beluluane Industrial Park near Matola, Mozambique, a shortage of workers with practical skills is a bottleneck for firms. Companies within the park are therefore allowed to bring in skilled workers from abroad for a limited time, leading to some transfer of skills, but not enough to fully meet firms' needs. The difficulty of getting skilled mechanics and machine operators has led some industries to train locals in these fields. The Armando Emilio Guebuza Institute for Industry and Computing, close to the park, offers vocational training. The linkage to knowledge-based supportive sectors is also important for industrial productivity—companies in the park have identified the inefficiency of business services as a constraint.

SEZs are more likely to benefit from agglomeration economies if they are well located, as demonstrated by successful automotive SEZs in South Africa (And see box 3.1). The country's automotive sector employed 31,260 in vehicle manufacturing in 2015, with another 82,100 in component manufacturing, earning \$11.8 billion in exports (Lamprecht, 2016). The automotive cluster in Gauteng province has been supported with policies since 1995: automotive firms in Gauteng benefit from a large educated labour force, a top performing business services sector and proximity to materials suppliers, in addition to well-developed infrastructure for transport and logistics.

SEZs can provide access to localization economies if same-sector industries cluster there. Morocco has had success in the automotive sector, with an SEZ outside Tangier benefiting from the collective potential of infrastructure, market access (to European markets) and localization economies. The automotive industry was jumpstarted with a \$2.1 billion investment by Renault on a 280 hectare site 30 km outside Tangier with railway and highway connectivity to the port. The factory started operations in 2012 and produced 288,053 vehicles in 2015. At the end of 2015, it directly employed

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Tangier has several industrial parks on the city's outskirts making it a promising growth centre, driven by manufacturing, trade and logistical services.

9,600 locally recruited workers and trained in the Automotive Careers Training Institute set up with the combined support of Renault and public investment. Renault largely exports vehicles to Europe (with plans to export to South America), but also sells in the domestic market. It had a 39 per cent market share in 2013 (Oxford Business Group, 2014).

The start of the auto industry boosted Morocco's export capacity, increased port activities and gave birth to a supply chain of an array of inputs such as exterior and interior trim, stamping, plastic injection, seats, cable wiring, safety systems, sealing and air conditioning systems (Oxford Business Group, 2014). An estimated 30 international subcontractors followed Renault, establishing production in Tangier, primarily in the Tangier Automotive City Free Zone. Ford has also based component manufacturers in the area, which supply auto production facilities in

Spain. Eighty per cent of the country's automotive sector enterprises are in Tangier, employing nearly 60,000 workers, with a smaller set of firms in Casablanca, producing more for the domestic market.

The auto industry in Tangier is part of a larger industrial hub with four free zones in and around Tangier: Tangier Free Zone, Renault's Melloussa Zone, Tangier Automotive City and the Fnideq Commercial Free Zone. They stretch across 3,000 hectares allocated to industrial development, with 1,200 hectares already developed. Two other industrial zones in Tétouan are dedicated to light-manufacturing activities, local small and medium-sized enterprises and offshoring. These zones form a system of industrial development within an 80 km radius of the Tangier-Med port. Tangier also has several industrial parks on the city's outskirts, making it a promising growth centre, driven by manufacturing, trade and logistical activities (Oxford Business Group, 2014).

Transport and logistical infrastructure includes the Tangier-Med port, with two terminals for cars and several rail connections to Rabat, Casablanca and Marrakech in the south, and Meknes, Fez and Oujda in the east. There is also a highway, since 2005 connecting Tangier with Rabat and other cities, the International Airport of Tangier and regular ferries to Spain, France and Italy.

5.5 INTEGRATED POLICIES TO LINK URBAN AND INDUSTRIAL DEVELOPMENT

African national development frameworks have a renewed focus on urban issues, but the economic importance of African cities is greater than the policy focus they currently receive. Therefore, unguided urban development remains a major threat to long-term urban competitiveness and economic productivity.

Just as African governments face the connected challenges of urbanization and industrialization, so their policies to overcome them should work along parallel tracks. Countries that earlier transformed from agrarian to developed and urbanized economies, including the newly industrialized East Asian countries, had governments that helped cities and firms overcome barriers to structural transformation (Lin, 2012).

Africa is diverse, and no single best practice can be applied universally, though some common

themes emerge. Dysfunctions in infrastructure and land markets, market failures, negative externalities and coordination problems affect cities and industries, and all require government action. There are opportunities for synergies and efficiencies if industrial and urban policies and their implementation are coordinated, especially under national development plans, as in Ethiopia (box 5.7).

Many African countries today have defined long-term national visions, plans or strategies and reinstated the functions of national development

African governments face the connected challenges of urbanization and industrialization, so their policies to overcome them should therefore work along parallel tracks.

BOX 5.7 NATIONAL DEVELOPMENT PLANNING IN ETHIOPIA

Although still at an early stage of both industrial and urban development, Ethiopia has set out a forward-thinking urban and industrial national development framework. The Plan for Accelerated and Sustained Development to End Poverty 2005/06–2009/10 was a turning point for the urban agenda in Ethiopia. It adjusted the policy scope of the previous industrial development strategy by broadening targeted industrial sectors and incorporating urban development (Gebreeyesus, 2016; UN-Habitat, 2014).

The plan was followed by a National Urban Development Policy (2005) and the preparation of the National Urban Development Strategy. The latter included an urban development package focused on investing in job creation through the housing and construction sector and an urban governance package targeted at overcoming the soft and hard infrastructure barriers constraining urban growth and industrial development.

The subsequent Growth and Transformation Plan of 2010/11–2014/15 and the Resilient and Green Growth and Governance package have both aligned with the national development vision of strong urban industrial sectors embedded in well-functioning cities, making “the urban agenda centre stage, particularly the role of cities in promoting industrialization, capital accumulation and stronger integration to global markets” (UN-Habitat, 2014, p. 40).

Ethiopia’s manufacturing value added, while still small, grew at an average of nearly 12 per cent a year over 2005–2015, or slightly higher than the economy as a whole (World Development Indicators). Ethiopia is the only African country with its share of employment in industry approaching its share of population in cities (Lesotho aside; see figure 3.9). The Ethiopian story is not an unequivocal success, however: the Addis Ababa metropolitan plan, drafted in 2012–2013, was met with major civil unrest, in large part tied to land rights.

planning ministries, commissions or authorities. Industrialization is now a core pillar of such planning initiatives (table 5.4).

There are opportunities for synergies and efficiencies if industrial and urban policies and their implementation are coordinated, especially under national development plans.

POLICY IMPLICATIONS FROM CASE STUDIES

Drawing on the findings from the country experiences described in this chapter, we derive three policy implications.

USING URBAN DEMAND TO DRIVE INDUSTRIAL DEVELOPMENT

To foster industrialization, policies should deliberately target agro-industry and the associated value chains, urban housing construction, urban infrastructure construction and urban-based business services, especially ICT and finance. The ability of domestic enterprises to meet urban demand is not a given, and imports are often supplanting domestic manufacturing and job creation. To leverage the opportunities created by urban demand, governments must provide targeted support, including through infrastructure, skill building and supportive policies along the value chain.

DEVELOPING A PRODUCTIVE SYSTEM OF CITIES

Policy frameworks should consider investments in secondary cities close to the competitiveness threshold, build their industrial capabilities in areas of existing comparative advantage, support their connectivity to primary cities and continue to invest in primary cities as the most important poles of growth.

TABLE 5.4 Policy frameworks in selected countries

	NATIONAL DEVELOPMENT PLAN	INDUSTRIAL POLICY	URBAN POLICY
Republic of Congo	Plan National de Développement (PND) 2012 – 2016	Incorporated in PND; Industrial Policy letter (for 2011–2016)	Incorporated in PND
Côte d'Ivoire	National Development Plan (NDP) 2016–2020	Investment Code (2012)	Incorporated in NDP
Ethiopia	The Second Growth and Transformation Plan 2015/16–2019/20	Ethiopian Industrial policy (2002); Industry Development Strategy	National Urban Policy (1995); Ethiopian Urban Development policy (2013)
Nigeria	Nigeria Vision 20:2020	National Industrial Revolution Plan (2014)	National Urban Development Policy 1992 (updated 2012)
Rwanda	Rwanda Vision 2020; Second Economic Development and Poverty Reduction Strategy (2013–2018)	National Industrial Policy (2011)	National Urbanization Policy; Urbanization and Rural Settlement Sector Strategic Plan (2012/13–2017/18)
South Africa	South Africa's National Development Plan (Vision 2030)	National Industrial Policy Framework; Industry Policy Action Plan (IPAP); 2016/17–2018/19	Integrated Urban Development Framework (IUDF); IUDF Implementation Plan 2016–2019; National Spatial Development Perspective

Source: Authors and contributors.

To foster industrialization, policies should deliberately target agro-industry and the associated value chains, urban housing construction, urban infrastructure construction and urban-based business services, especially ICT and finance.

Beyond boosting secondary cities, policies should ensure that resources are not wasted on lagging regions, and that existing cities are improved before attempts are made to create new cities.

OVERCOMING COMMON BARRIERS WITHIN CITIES TO AGGLOMERATION ECONOMIES

Many African cities need spatial development plans that are connected to economic development planning, especially as they face pressing challenges that have undermined their ability to capitalize on agglomeration economies. Special economic zones have had mixed results in creating pockets of competitiveness, and should be connected to well-functioning cities in order to access economies of agglomeration.

Cities need more policy focus. Despite new policy efforts to address urban issues, the pressing challenges of mobility, segregation and land management pose major constraints to urban productivity and competitiveness. Compared with the magnitude of urban constraints and the economic importance of cities, policies to address these urban issues are sparse, underdeveloped and uncoordinated.

Africa's cities need strong guiding policy frameworks urgently. African policies and implementation generally have a long way to go to fully leverage the benefits of urban agglomeration economies for industrial value chains and the broader economy. This period is critical for investing in better functioning cities. The urbanization process occurs within a window of years, and cities developed without strong guiding policy frameworks will suffer for many decades to come, dragging down national economic performance with them.

FROM POLICY TO IMPLEMENTATION

Msami and Wangwe write that Africa is “awash with impressively written strategies, with effective implementation remaining by far the weakest link” (2016, p. 172).

COORDINATION

Policy coordination is critical. A study of 11 cases in the *Economic Report on Africa 2014* finds that “industrial policy coordination at higher levels is minimal—and in some countries completely missing. One notable omission is that the private sector is often left out” (UNECA, 2014). When those managing cities and those managing industrial development work together, they can tackle shared problems such as traffic and mobility, workforce housing, land management and the provision of public services. For example, around the Bay of Nacala, in northern Mozambique, industrial development has proceeded rapidly, with long, fenced factories extending along the major highway and cutting off access for the residential areas on the other side (figure 5.7). The local governments in the area have created new sustainable urban development plans and are now working with GAZEDA, the national SEZ agency, to promote more connected urban form to support the area's long-term development.

FINANCE

Policy implementation is, of course, impossible without financing. Local authorities deliver public services underlying the economic potential of cities, but their budgets are usually insufficient for fully implementing crucial public investments. But some locales have seen successes in decentralizing funding. In Rwanda expenditure on infrastructure

Policy coordination is critical. When those managing cities and those managing industrial development work together, they can tackle shared problems such as traffic and mobility, workforce housing, land management and the provision of public services.

FIGURE 5.7 A residential area (right) is cut off from the main highway by an industrial fence-line in Nacala Porto, Mozambique



Source: Satellite imagery by Google.

development can be a heavy share of subnational budgets in urban areas: in 2014/15 it was budgeted at 63 per cent of Kigali's total budget (City of Kigali, 2013).

Central transfers to districts also make capital funding available, so that district development plans can have an impact with the right priorities and phasing. In Kenya, devolution and the creation of county governments under the 2010 constitution have brought new public services to the underdeveloped north. International agencies are also supporting capacity development there, which will be critical as untapped natural resources in the area are beginning to attract industrial development.

Private involvement holds potential for financing industrial and urban development, especially if large gaps in infrastructure finance are to be plugged into.

Central transfers are not the only way to boost decentralized finance. In Ethiopia Addis Ababa and Dire Dawa have expanded mandates and are building capacity to generate local taxes, including collecting income and capital gain taxes and mobilizing various sources of revenue. Addis Ababa's per capita revenue for 2010/11 was \$146, far higher than the average per capita budget of urban authorities in Ethiopia. Dire Dawa's per capita revenue for the same year was 2.4 times the national average (Ministry of Urban Development, Housing and Construction, 2015). Based on budget figures for 2015, more than 90 per cent of revenue to Addis Ababa comes from taxes, including value added, sales, service turnover and excise taxes. The largest tax source is the income and capital gains tax, accounting for over two-thirds of all tax revenues. The city also generates some revenue through land leases: in the 2015 budget year, the revenue from land leases accounted for about 7 per cent of the total.

The local revenue base for other local government bodies in Ethiopia is small. Local sources are limited, with urban land leases accounting for 21.5 per cent of local revenues, while the average local or municipal

revenue is only 15.6 per cent of its total budget. This makes local government bodies dependent on regional budget allocations for any significant urban investment in infrastructure expansion or improvement (Ministry of Construction, Housing and Urban Development, 2015).

Land value capture is an underused revenue tool that holds benefits for supporting productive cities and building the capacity for infrastructure finance. Taxes and fees on land value are generally considered the most economically efficient taxes because the gains to land owners arising from public investment and good urban management are windfalls and not based on actions by the owners. Many instruments can be used for land value capture, including value-based annual land taxes, local capital gains taxes, sales of development rights (for example, height-limit exemption fees) and special levies, where property owners pay directly towards the cost of specific improvements affecting them. Effective use of property taxes in particular can be the first step towards subnational creditworthiness and the ability to access infrastructure financing. However, these instruments can be politically difficult to implement given their high visibility and broad application (Walters, 2016). Governments have often settled for taxes that are easier to impose but cause economic distortions owing to their high cost on a limited tax base (UN-Habitat, 2016).

Despite the challenges, some African cities are improving their use of land taxes. In Sierra Leone the city of Makeni increased property revenues by 600–700 per cent in a single year after a programme that included surveying properties, valuation based on a clear and transparent formula, a public information campaign and billing by mail (Walters and Gauntner, 2016). In Somalia, through a programme that established a new GIS database of properties, an automated and transparent billing

system and updates to the legal framework for property tax collection, Hargesia's property tax revenues rose to \$1 million in 2015, a nearly 300 per cent increase from 2008. Other cities in Somaliland and Puntland have also seen substantial increases in revenues under the same programme (Engindeniz, Mohamoud and Glass, 2016). In several countries including Cameroon, Madagascar and Senegal, taxpayer engagement has improved revenues from property taxes, showing the benefits of involving taxpayers in developing the budget (Monkam and Moore, 2015).

Improved financial management and successful collection of land-based revenues, including property taxes, can be the first step towards subnational creditworthiness and the possibility of bond issuance. Municipal bonds are rare in Africa, with a few exceptions in Cameroon, Nigeria and South Africa. In 2014 the city of Dakar, Senegal, was prepared to borrow \$41.8 million, with a seven-year term and with a partial guarantee from USAID's Development Authority. The money was to be invested in building a market place that would benefit 3,500 vendors (USAID, 2014). Though the amount was modest, it was to be a major step in opening a new financing source for municipalities in Senegal. Eventually however, the initiative failed to get the national government's approval, and it did not materialize (Swope and Kassé, 2015).

Private involvement holds potential for financing industrial and urban development, especially if large gaps in infrastructure finance are to be plugged into. In many cases, the private sector has access to private borrowing and the capacity to act more quickly than public agencies. The financial returns on industrial development can incentivize private participation under the right investment conditions. In Nigeria, firms have worked with state governments to deliver key infrastructure (including workforce housing) when it benefits them.

More traditional public-private partnerships also hold potential for establishing infrastructure. One example is the N4 toll road between South Africa's Gauteng province and Mozambique's Maputo Port, which has connected industries and markets, particularly in Mozambique. Established in 1996 the original concession agreement was completely privately financed with 20 per cent equity. The financing did not include a government subsidy, but the two national governments guaranteed the loan.

Improved financial management and successful collection of land-based revenues, including property taxes, can be the first step towards subnational creditworthiness and the possibility of bond issuance.

The 30-year concession allocates responsibility for financing, design, construction, rehabilitation and operation and maintenance to a private consortium, with reversion to government control in 2027. Despite payment risks, including competing lower quality transport routes and slower than expected economic growth in Mozambique, traffic volumes have been enough to ensure financial solvency, and payments from the South African portion have cross-subsidized the Mozambican portion of the road. Criticisms of the project include the exclusion of lower income road users, particularly small enterprises along the corridor (PPIAF, 2009; Farlam, 2005).

In Côte d'Ivoire, private participation in the financing of national development planning has been a success factor in the country's post-2011 economic resurgence. The private share of investments shot up from 30 per cent in 2005 to nearly 70 per cent in 2015, even as total investments increased. One facilitating factor was the promotion in 2014 of public-private enterprises and the involvement of the private sector in a newly established code of investment. The 2016–2020 National Development Plan has slated 60 per cent of the \$60 billion overall cost of implementation for private finance. A large part of the investments will be in upgrading and innovating infrastructure: water, roads and electricity production (AfDB, OECD and UNDP, 2016). Already, bond issuances for projects under the National Development Plan have been widely oversubscribed by development partners.

TO SUMMARIZE ...

The core components of successful implementation include:

- Coordination among implementing agencies, especially those managing industrial development and those managing urban development, as well as between national and local levels, including a mechanism to institutionalize it.
- Subnational government capacity (human, technical and financial) to implement policy mandates at this level.
- Finance and financial management, including policy-based budgeting, decentralized financial management and land-based revenue generation.
- Private participation in finance (including through public-private partnerships) and coordinated implementation.

Finally, even with the broad base of research on agglomeration economies and industrial development, empirical evidence for the effectiveness of policies, especially in Africa, is patchy. As countries develop and implement their policies, they should also monitor and evaluate such impacts, allowing them to adapt policy in near-real time and to develop a knowledge base of African good practices.

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ENDNOTES

- 1 Urbanization and industrialization can be mutually reinforcing. However, the ways urbanization can better contribute to job-rich industrial growth are more of a concern for policymakers than the ways industry stimulates urbanization. For this reason, the former is the focus of this report.
- 2 This framework is described in McKinsey Global Institute (2010).
- 3 The programme also has objectives to support women's access to property and create jobs, especially for young people.
- 4 People are registered and the lottery is administered by town. Initially the programme was in Addis Ababa, and later adopted by other cities.
- 5 To mitigate this challenge, there is a government effort to improve public transport, including through light rail links, the first phase of which is already operational.
- 6 ICT in particular offers a pathway to youth inclusion in the formal job market with potential to contribute to the demographic dividend.
- 7 Based on World Bank Enterprise Surveys, using the most recent data from 2005–2015.
- 8 <http://www.nazret.com/2017/01/11/ethiopia-djibouti-railway-officially-inaugurated/>, accessed January 11, 2017.
- 9 https://www.icafrica.org/fileadmin/documents/Transport_Meeting/S4-Djibouti-Ethiopia_Railway-Final-EN.pdf; The Djibouti–Ethiopia Railway, Financing Transport for Growth in Africa; December 2007.

URBANIZING TO INDUSTRIALIZE: POLICY RESPONSES



Africa is undergoing a rapid urban transition with considerable implications for industrialization, a key imperative for inclusive structural transformation. Urbanization and industrialization are closely linked elsewhere, but in Africa these links are weak or absent. And where they exist, have often developed organically rather than through deliberate policy responses, even though the importance of coordinating industrial and urban development was recognized by African policymakers as far back as the 1960s (UNECA, 1962). The challenge for Africa is thus to transform its economic growth into sustained and

inclusive development by harnessing urbanization to promote economic diversification, with a special focus on industrialization that creates jobs, reduces inequality and poverty, and enhances access to basic services.

This chapter summarizes some of the key issues and offers pointers for cross-cutting policies to reconnect the traditionally separate domains of urban and industrial development. It should be useful for policymakers, researchers, civil society actors and others.

Policies should expressly target subsectors of urban-driven domestic and regional demand, fostering value addition and job creation by developing domestic manufacturing and services.

6.1 KEY ISSUES AND RESPONSES

Africa's rapid urbanization is a powerful asset for structural transformation—if it is harnessed by a strategic cross-cutting policy framework. Africa is the fastest urbanizing region after Asia. In less than two decades, more than half the region's population will live in urban areas and the total urban population will have doubled, presenting opportunities and challenges for managing urbanization. Yet despite the importance of cities for industrial development and vice versa, the planning processes and institutional frameworks are disjointed. Policies are often formulated and implemented in “silos,” with little analysis of the impact of urban trends and economic geography on industrialization in national development plans.

Policies should expressly target subsectors of urban-driven domestic and regional demand, fostering value addition and job creation by developing domestic manufacturing and services. They should also stimulate agricultural productivity—a key factor in structural transformation. In turn, industrial development should boost urban and rural economies through its impact on employment, income and fiscal revenues, as well as demand for local inputs and agricultural raw materials. To leverage the opportunities created by urban demand, a host of strategic actions should support activities at all stages of targeted value chains in agriculture, manufacturing and services, such as building skills, improving infrastructure, expanding access to business services and promoting spatial development policies.

Also critical is building a national urban system to accelerate industrial development. Increasing industrial production and domestic, regional and global trade requires a system of cities that are functionally and spatially connected. A diverse system of cities is important to provide subsectors with locational options that meet their preferences. Competitive secondary cities can catalyse industrial development by linking manufacturing and urban markets to rural areas and regions with agricultural and natural resource potential.

But many African cities have excessive primacy—too large a primary city, too small secondary cities—where big cities face diseconomies of scale and secondary cities are too small or poorly serviced to offer competitive spatial advantages to businesses and industrial firms. A national system of cities of different sizes and complementary functions, along with improved transport, logistics and connectivity, is essential to overcome this structural challenge and support value chains, including those operating across borders.

Undermining the potential benefits of agglomeration economies in cities are factors tied to institutions, infrastructure and urban form. African cities are becoming less dense and more segregated. They lack basic infrastructure and services, and they are shackled by poor mobility. This makes African cities expensive¹ and puts African firms at an economic disadvantage. Many cities feature disproportionately high costs of labour, land and transport.

Increasing industrial production and domestic, regional and global trade requires a system of cities that are functionally and spatially connected.

In short, policymakers need to leverage urban drivers by maximizing urban productivity enablers and addressing barriers through a coherent set of sound urban development policies, planning and investments aligned to industrial development goals and priorities.

6.2 INTEGRATING URBAN AND INDUSTRIAL POLICY

Africa's unguided urban expansion risks perpetuating non-inclusive and unsustainable growth (chapters 1 and 2). Given the role of national development planning in setting targets for economically, environmentally and socially sustainable outcomes and inclusive growth in line with global and continental commitments, it is important to factor in cities' potential for achieving those targets. Cross-cutting national development planning will permit strategic interventions that benefit both sides—urban *and* industrial. Sectoral policies alone cannot link the two sides, or shape the long-term visions for growth and structural transformation. Connecting both sides requires addressing issues beyond the remit of sectoral policies and separate parts of government. For example, regional infrastructure investment priorities are often set nationally, not by sector, but they still shape urban and industrial outcomes.

NATIONAL DEVELOPMENT PLANNING FRAMEWORKS

Under the umbrella of national development planning, policymakers must make hard choices for urban and industrial development. Since failures to prioritize investment and resources will dilute actions that achieve little success anyway, and targeting is needed to simultaneously promote urban and industrial productivity. For example, investments and public resources directed at industrial subsectors and their value chains, especially those that can best achieve the development priorities identified in national development plans, should be prioritized. Labour-intensive manufacturing should be a key component owing to its unique qualities to absorb a large, semi-skilled labour force while setting the foundations for productivity convergence and

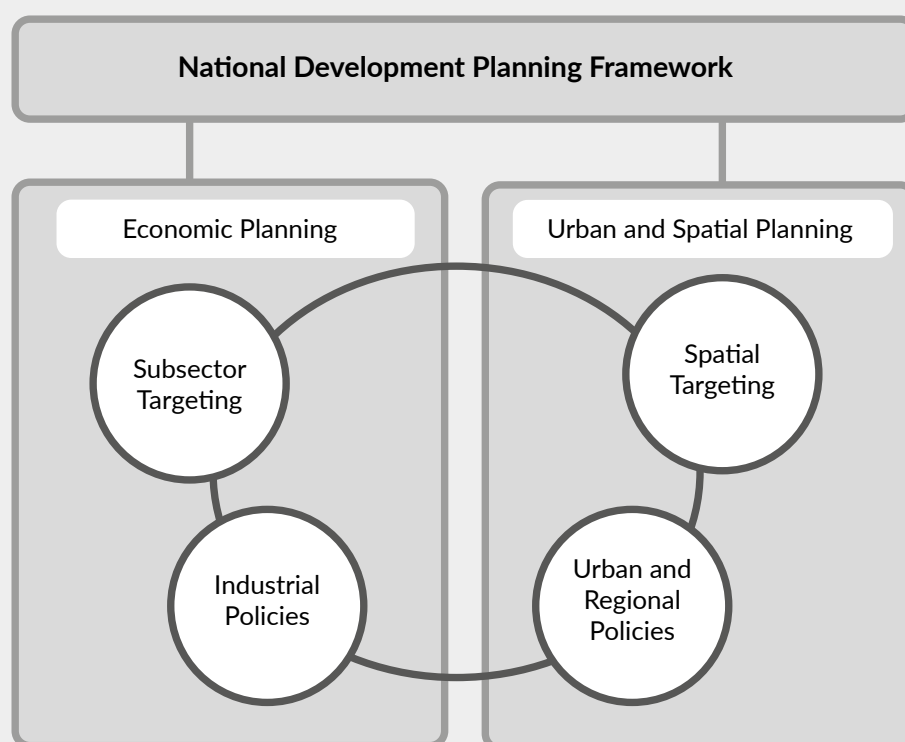
BOX 6.1 FOLDING URBAN DEVELOPMENT INTO NATIONAL DEVELOPMENT PLANS: RWANDA AND SOUTH AFRICA

Rwanda's Vision 2020 considers urbanization a key component for taking the country to middle-income country status, with a targeted 30 per cent urban population share achieved through planned development of Kigali and six secondary cities (Ministry of Finance and Economic Planning, 2000).

Similarly, the Economic Development and Poverty Reduction Strategy states that as part of the priorities for economic transformation, the six secondary cities will be developed as growth poles and hubs of non-agricultural activity. Strategic economic projects and improved connectivity to other towns and rural areas are planned, as is upgraded hard and soft infrastructure, but the strategy continues to underline the critical role of Kigali as a subregional hub. Green urbanization will be a pillar of its green economy approach. The strategy also makes explicit the links between structural transformation and urbanization (Ministry of Finance and Economic Planning, 2013).

South Africa's 2030 National Development Plan considers urban growth an opportunity. As part of its analysis of mega-trends and the global economy, it looks at the impact of the growing middle class on consumption and business opportunities. It also notes that "urbanization not only reduces the number of people engaged in small-scale agriculture; it also facilitates economic diversification. The combined effects of lower dependency ratios and greater urbanization ought to have a further significant impact on the productivity of the labour force" (p. 86). The plan mentions the expected rise in discretionary income related to urban trends and the positive impacts of consumer spending on banks, telecommunications firms and manufacturers of fast-moving consumer goods, but finds that cities are not productive enough or generating enough jobs, partly because of their inability to retain local spending power or attract productive investment, and partly because of manufacturing's poor performance. The plan lays out a spatial development approach that creates "functionally integrated, balanced and vibrant urban settlements" (National Planning Commission, n.d.).

FIGURE 6.1 Connecting policies for national, industrial and urban development



Source: Authors

broad-based growth (see chapter 3). Such targeting should also consider focusing on women in training and hiring, to achieve gender parity.

Many African states have recently re-recognized the need for national development plans, including long-term visions and the means of achieving them. As the overarching framework, these plans are ideal for linking targets for urbanizing and industrializing. Yet the plans' prognoses for urban development differ starkly. Most plans have a limited approach, focusing on housing or fragmenting responsibility to unconnected agencies, and few consider urbanization in broader growth targets. They lack a spatial angle, too (just as urban plans omit an economic angle), though some countries are ahead of others (box 6.1).

Once the opportunities arising from urbanization for industrialization and from industrialization for urbanization are appreciated, steps towards an integrated policy should encompass subsector targeting, industrial policies, spatial targeting and urban/regional policies under an overall framework of national development planning (figure 6.1).

SUBSECTOR TARGETING IN INDUSTRIAL POLICIES

Investments and public resources will have more impact if they lift certain industrial subsectors and their value chains to achieve the development goals in the national development plan.

PRIORITIZE LABOUR-INTENSIVE MANUFACTURING

Labour-intensive manufacturing should be a key component because of the jobs it can generate (see chapter 3). Conversely, policies that primarily support high-growth subsectors but generate few jobs—directly or through their multiplier effect—will not contribute to structural transformation and will fail to exploit the demographic dividend or end poverty. This is a particular challenge for countries reliant on natural resources. They should use income from natural resources to invest in well-functioning urban systems as a foundation for stable long-term economic growth, as well as lay emphasis on policies and investments for value added and labour-intensive linkages.

FOCUS ON EXISTING COMPARATIVE ADVANTAGES BASED ON RESOURCE ENDOWMENTS AND GEOGRAPHY

Targeting specific subsectors for industrialization and managing the trade-offs between investment strategies should consider the comparative advantages of these subsectors. Countries may have these advantages due to a mix of their natural endowments, growth trajectory, geographical location and regional dynamics. It is important to consider the industrial subsectors where an economy can compete based on the resources available, although there may be benefits in entering higher-productivity subsectors where it lacks comparative advantage, which may be acquired gradually (Redding, 1999).

Broadening and deepening value chains linked to natural resource endowments is central to industrial policy in Africa. The importance of commodity-based industrialization as a means of diversifying African economies over the long term while building competitive advantages in resource-rich countries has been underscored in previous reports (ERA 2014). Industrial policy should target subsectors that can respond to growing and shifting patterns of

Investments and public resources will have more impact if they lift certain industrial subsectors and their value chains to achieve the development goals in the national development plan.

urban consumption, taking into account a country's agricultural potential, natural resource endowments and related value chains.

Geographical comparative advantages may have been shaped by proximity and connectedness to continental and non-African markets, such as Tangier's automotive industry, which thrives in part on its proximity to European markets. Africa's trade presents major opportunities, with intra-African exports representing a more diversified range of goods and services than exports outside the continent.

Geographical advantages at subregional level within Africa should be strengthened by Africa's regional economic communities and the proposed Continental Free Trade Area. For example, although Rwanda is a landlocked country with a small domestic market, it is a leader in tradeable services that could be better linked to subregional industries, and its agro-industry could better serve subregional markets if logistics and ports were better.

Based on natural resource endowments, spatial targeting of industrial subsectors should be coordinated with urban development. Subsectors most dependent on natural resources or on relatively immobile factors of production are likely to concentrate on locations endowed with them. These preferences can be guided and supported, linked to the vision for urbanization and the national urban system.

SUPPORT EXISTING SUBSECTORS

Existing manufacturing subsectors should not be ignored, particularly those that emerged organically in response to demand. Such subsectors can often grow in employment and global competitiveness with the right policy support, particularly in informal manufacturing where small enterprises are held back

by their inability to access key factors of production (land, electricity, finance or skills).

Drawing on industry-wide and firm-level data, it will be vital to identify leading, lagging, emerging and declining subsectors for targeting. Policymakers may also consider the country's position within product spaces² to steer it more to a set of manufactured goods that builds skills, capacities and linkages with other similar goods, opening opportunities for diversifying into similar products.

RESPOND TO URBAN DEMAND THROUGH DOMESTIC INDUSTRY

Africa's growing demand and consumer class signal market opportunities for industrial development generally and some subsectors more specifically, including the following four.

Urban housing. African cities face severe housing backlogs. Governments can leverage market-based and social housing to develop the domestic construction and building material industries, including through procurement and local content policies that support the development of firms and suppliers along the value chain. Procurement policies should be paired with support to firms and workers to meet the required standards. Programmes that focus on small and medium-size enterprises, women and youth are well placed to broaden the job-creation benefits of the construction boom closely associated with urbanization across Africa..

Urban infrastructure. African cities face wide infrastructure gaps hurting the spatial structure of cities and undermining their competitiveness. Efficient services and infrastructure are urgently needed to support industrial productivity, but investment should be planned to meet industry

needs, generate jobs and develop local construction capacity. Infrastructure investment should also be tied to domestic industry, in some cases through procurement policies favouring local sourcing. However, domestic supply chains will no doubt need support to meet infrastructure needs and standards. Low-tech, labour-intensive infrastructure projects have favourable impacts on local job creation, as seen in Ethiopia's cobblestone road-paving projects. Urban areas also offer opportunities to green Africa's infrastructure and related industries. Urban energy consumption, construction, transport and waste management are all areas with potential for greening and for employment creation (UNECA, 2016).

Urban food and agricultural value chains. Spurred by rapid urbanization, urban food demand is rising and shifting to processed food. This presents opportunities for agricultural modernization through agro-processing and for a range of manufacturing and associated enterprises along the food value chain—from farming to transport and logistics, to retail. Agro-industrialization is critical in Africa where subsistence agriculture remains the backbone of most economies. Identifying value-adding opportunities along the chain has a strong spatial element, however: clusters and locations of comparative advantage have to be spatially mapped and supported with hard and soft infrastructure. Cities and other locations along the supply chain have to be connected to ensure efficient flows of production factors, intermediate inputs and final products to the market. The role of intermediate towns in linking urban demand with agro-industrialization is particularly important.

Large food retailers tend to have the most power in processed food value chains, presenting an opportunity to draw on their power for developing supply chains. South Africa's Massmart Supplier Development Fund is an example.

Urban-based business services. Business services tend to cluster in cities, where they can access pools of skilled labour and knowledge and provide a better business environment and capacity if linked to industrial needs. Urban-based tradeable services, such as finance, insurance, real estate, accounting, information and communications technology (ICT) and other business services, have a dual role in linking urbanization and economic growth. They are vital to the productivity of industry, particularly

Africa's growing demand and consumer class signal market opportunities for general industrial development and for some specific urban subsectors, including housing, infrastructure, food and agricultural value chains and business services.

TABLE 6.1 Costs and benefits of spatial targeting

INVESTMENTS WILL LIKELY HAVE HIGHER BENEFITS IN A CITY THAT...	INVESTMENTS WILL LIKELY HAVE HIGHER COSTS IN A CITY THAT...
<ul style="list-style-type: none">• Is a preferential location for industries targeted by the national industrial policy• Has a higher population (higher number of people to benefit from investments)• Has a higher number of existing economic enterprises• Is already at or close to a size threshold where the city will become a competitive location for firms• Is well connected to strategic national, regional and international networks	<ul style="list-style-type: none">• Lags behind in basic infrastructure• Is isolated from existing national, regional and international networks• Lacks subnational capacity to manage infrastructure investment, operation and maintenance• Is unappealing to targeted industries

BOX 6.2 A MASTER SPATIAL PLAN IN SOUTH AFRICA

Spatial targeting is a key principle in a Master Spatial Plan for Human Settlement in South Africa. In line with the imperative of efficiency set out in the National Development Plan 2030, the human settlements department is requested to “direct investment in places that optimise existing capacity of our settlements (introvert) before engaging in fiscally onerous (expansive) settlement approaches, by acknowledging existing localized spatial targeted areas for investment” (Department of Human Settlements, 2014).

manufacturing and construction. And their job expansion is a pathway to structural transformation and economic growth. Inclusive financing to enable small and medium-size enterprises in startup and operation should be part of any strategy.

Some approaches have already stimulated such services. Rwanda’s policy to support ICT and financial services has been very successful, with major benefits to the business environment and related investments in technology, while Sudan has supported the Islamic-compliant finance subsector, including microfinance.

The opportunities and challenges presented by urban growth need to be explicitly considered in industrial policies, since successful industrial policies hinge on a host of conditions and spatial factors.

SPATIAL CONSIDERATIONS IN INDUSTRIAL POLICIES

The opportunities and challenges presented by urban growth need to be explicitly considered in industrial policies, which rarely do so. Successful industrial policies hinge on host of conditions and spatial factors. They seek to outline what to produce and where to produce. They should be tailored to the spatial needs of targeted subsectors and firms, and different types of cities should be developed to match different needs of industries. Spatial targeting of investments (below) and developing a functionally complementary system of cities and towns must be embedded in industrial and urban policies.

Industrial performance can be enhanced (or impaired) by the efficiency (or inefficiency) of cities and urban regions. Poorly functioning land markets, backlogs in basic urban infrastructure, transport and energy, and shortages of skilled labour in cities can constrain industrial development.

Industrial policymakers—not just urban planners—should recognize that the spatial layout of cities impinges on industrial productivity. Urban land use policies should therefore provide for future industrial growth in a framework compatible with competing development needs. And they should improve access to land for existing firms and new startups and facilitate clustering for firms to reap agglomeration economies. Again, mobility is vital, within and among cities, urban regions and regional corridors, while housing supply and affordability feed back into the labour market, affecting industry's access to the labour pool.

Policies and investments in technical and vocational education and training (TVET) can work when they narrow priority industrial subsector skill deficits—and thus demanding the attention of urban and industrial policymakers as well as private operators.

SPATIAL TARGETING FOR A NATIONAL URBAN SYSTEM

Spatial targeting determines which industries should go where and which cities and urban regions should receive priority in infrastructure investments. When planning is coordinated, industrial projects and infrastructure investments move in tandem to priority cities and urban regions. The corollary is that policymakers need to consider the probably too-high cost of investing in lagging places, at least initially, and seek other ways to promote balanced national development. Spatial targeting should evaluate the benefits and costs for different cities (table 6.1 and box 6.2).

Targeted cities should be supported to work with prospective investors in identifying and meeting needs of industrial subsectors, and given the capacity to plan for future growth, secure land for future development and infrastructure and invest in housing and basic services. Where necessary, support should be given to relocating firms and workers.

Modern industrial development requires a national urban system with spatial options meeting diverse industrial needs. The location decisions of major economic investments shape the economic geography of the country, and the evolving national urban system of cities, metropolitan regions and

Large cities offer a range of specialized services and facilitate innovation, competition and entrepreneurship, making them suitable for business startups and incubation, hence the need for governments to foster the continued competitiveness of large cities for the long term.

development areas guide industrial investment decisions. Therefore industrial investments (such as special economic zones) and major investments in the national urban system—road networks, transport corridors, new cities, growth centres and improvement projects—should be carefully matched to long-term policy goals and levers of the national urban economic geography, considering the following points.

SUPPORT A MORE BALANCED NATIONAL URBAN SYSTEM

The prevalence of urban primacy in Africa constrains industrial firms. But despite the problems associated with unbalanced top-heavy urban systems, policies to rebalance them and bolster the role of secondary cities should proceed cautiously, as part of the long-term development process. They should avoid two major errors: neglecting the prime city (this would reduce economy-wide performance), and attempting to shift industry to lagging areas with poor locational advantages (this would hurt industry's performance).

Large cities offer a range of specialized services and facilitate innovation, competition and entrepreneurship, making them suitable for business startups and incubation. Firms may prefer starting up in big cities and relocating to secondary cities as their business matures or feel disadvantaged by the increasing costs of land, labour and congestion. Governments should therefore foster the continued competitiveness of large cities for the long term,³ by investing in physical infrastructure and in areas that support innovation and knowledge transfers. Removing barriers and maximizing investments in these cities when countries are relatively poor can conserve scarce physical capital, allowing more

people to benefit at less cost in populated areas than would be the case many years down the road.

Strategies to support smaller cities should focus on unique areas of comparative advantage. Small cities or market towns close to resources or agricultural potential, and with good links to other cities, can flourish on the back of specialized services and processing industries fostering urban–rural linkage. In selecting secondary-city growth poles, cities to prioritize are those already close to a competitiveness threshold in size, infrastructure and economic activity.

Particularly important is strengthening transport and logistics connections between cities, especially those with the prime city and those that support associated value chains. Such connectivity, if done with a strategic spatial vision, will in the long run create an urban system for secondary cities to begin to reveal their dynamism and complement the larger cities.

The creation of new cities is one policy often intended to overcome the shortfalls of existing urban areas. However, new cities usually require massive investments, may not reach competitiveness thresholds and may be dogged by the institutional issues of current cities.

CATER TO SPATIAL NEEDS OF TARGETED SUBSECTORS

The priorities of spatial targeting should be guided by targeted subsectors' locational needs and preferences based on their reliance on knowledge, technology, labour, intermediate inputs and access to final markets. It is thus important that industrial planners review closely natural-location characteristics, as well as the powerful forces of infrastructure and agglomeration. Firms differ in their location preference, with some clustering with unrelated firms in diverse subsectors (urbanization economies) and others clustering with related firms in their own subsector (localization economies).

Access to factors of production, markets and infrastructure determines whether a city (or an area within a city) will benefit industrial firms.

Some general principles of these needs can be gleaned from experience and empirical studies.

- Newly emerging firms, innovation-based subsectors and knowledge-intensive subsectors tend to rely on large, diverse cities.
- Established industrial firms may decentralize to the urban periphery or secondary cities where the costs of land and labour are lower.
- Smaller specialized cities can offer the localization benefits of clustering without the costs of large diverse cities.
- Labour-intensive subsectors balance the need to access a large supply of labour with the costs of a city, tending to locate in medium-size cities.
- Input-intensive subsectors, such as wood, tend to locate near the source of inputs.
- Manufacturing firms with higher value added or end products show a preference for market access in the form of a large urban population or proximity to a port or highway.

Access to factors of production, markets and infrastructure determines whether a city (or area within a city) will benefit industrial firms, and with the concept of access based on proximity and mobility, land use and transport become twin components in determining whether a given firm can access labour, inputs, markets and knowledge and the associated productivity-enhancing advantages of agglomeration economies.

LEVERAGE SPECIAL ECONOMIC ZONES IN A CONNECTED GEOGRAPHICAL CONTEXT

Special economic zones (SEZs) offer one option for spatially connecting industry with the benefits of agglomeration economies in pockets of well-serviced land, and they have the potential to improve the business environment, particularly access to infrastructure. Industrial land-use policymakers, instead of planning SEZs in isolation from the productive advantages of cities, should aim to achieve SEZs' access to the following: a large pool of labour; same-subsector clusters and their potential for knowledge transfer; support services; forward and backward linkages (including to informal enterprises); and the purchasing power of large urban markets, especially when producing for domestic consumption. SEZs' locational advantages should be strong enough to enable firms to compete in regional and, eventually, global markets.

Industrial targets should be a foundation and guiding force for national, urban and spatial planning policies, or urban development plans.

CONSIDER THE GEOGRAPHY OF COMPARATIVE ADVANTAGES, INCLUDING NATURAL RESOURCES AND NETWORKS

Spatially targeted strategies should factor in the comparative advantages offered by urban locations for industrial development, because advantages differ. For instance, some places may allow better access to natural resource endowments and agricultural products and be a natural fit for beneficiation (improving economic value) or agro-processing. Others may offer proximity to markets of different scale (national, regional and international), providing opportunities for producing goods and services for those markets. Still others may already be specialized cities that could improve the productivity of subsectors through investments in TVET or infrastructure. Some urban locations may offer labour at the required scale and be attractive for labour-intensive activity.

SUPPORT COMPLEMENTARITY AMONG CITIES IN THE NATIONAL URBAN SYSTEM

The national urban system should optimize the complementary functions of different cities, responding to the different needs of industrial firms and preventing secondary cities from competing with each other in a narrow range of products. For example, even if industrial policy targets maize, not every secondary city can (or even should) specialize in maize processing; some cities may be better suited for clusters in fertilizer, finance or poultry, all with links to the maize value chain. While large capital and prime cities continue to see a concentration of economic activity in most African countries, smaller intermediate cities are vital for supporting larger cities and rural economies. And cities differ by function: some have more diverse economies, while others are more specialized.

A well-connected and balanced national system allows for complementarity between cities whose structure, size and function varies, primarily through transport but also through economic links. If the national system of cities is to facilitate industrial development, it should be better connected to regional and international economies.

URBAN POLICIES

Few national urban and spatial planning policies, or urban development plans, are attuned to the needs of industrial development. Yet industrial targets should be a foundation and guiding force for these policies. Similarly, the economic and industrial development objectives of urban development plans are often poorly articulated or lack a strong spatial economic basis.

A wealth of policy knowledge shows how to respond to emerging urban development. For example, UN-Habitat's three-pronged approach (prioritizing and coordinating urban planning and design, urban legislative and regulatory frameworks, and urban finance) is a valuable framework. It is premised on the argument that urban planning needs to be supported by targeted regulations and implementable financial plans. In Africa, however, where sustained economic growth, industrial development and job creation are major concerns, it is important to explicitly link such regulations and plans (or urban development generally) to national development targets and industrial priorities.

Planners should design cities to maximize their role in structural transformation, prioritizing urban spatial factors critical to economic development. They could do this by locating targeted subsectors and their value chains in cities and urban regions where present and future economic advantages arising from spatial economic forces are likely to be maximized. They should also improve the fundamentals of urban economic geography, especially in key primary and secondary cities, to support all economic activities in those cities.

BETTER MANAGE EMERGING URBAN FORM

African cities are growing, and many are becoming less compact, less connected and more segregated. The urban economic advantage is being undermined by too little density, by residential segregation and by the artificial separation of land uses, sometimes the result of colonial zoning and building codes. Peripheral development often proceeds without planning for a connected street grid and transport corridors. Breakthroughs in ICT technology may have improved connectedness on some levels, but do not supersede the economic benefits of urban proximity and mobility.⁴

To help cities grow in connected and compact ways, governments should remove zoning and restrictions on density, apart from those for “bad neighbour” industries which adversely impact their immediate surroundings through pollution, noise, smell etc.. They should also integrate social housing into the urban fabric instead of allowing it to be clustered in isolated and peripheral enclaves. And they need to plan and protect a connected grid of streets in advance of unplanned growth, including informal growth and expansion by private developers.

Such foresightful planning can avert huge outlays over the long term, because retrofitting poorly planned urban areas, particularly adding missing infrastructure, comes at a huge cost. There are proven strategies for redevelopment, including land readjustment, although they can be time consuming and socially challenging.

Urban form cannot be economically efficient if land and property markets are dysfunctional.

IMPROVE LAND AND PROPERTY MARKETS

Urban form cannot be economically efficient if land and property markets are dysfunctional. Their poor functioning undercuts economies of agglomeration, the mortgage finance industry and subnational land-based revenue streams.

The first step in upgrading land management is to improve and regularize institutions supporting these markets, including a land registration system that

Improved mobility in urban areas is key for cities to support industrial development, notably, mass transit and non-motorized (pedestrian and cycling) transport infrastructure connecting industrial firms and their workers.

is digital, complete and easily updatable. A related issue is to increase transparency to limit corruption. Information on land should be made publicly accessible with a neutral monitoring agency. The rights of women to property need to be protected.

INVEST IN MULTI-MODAL MOBILITY

Improved mobility in urban areas is key for cities to support industrial development, notably mass transit and non-motorized (pedestrian and cycling) transport infrastructure connecting industrial firms and their workers, given that the majority of Africa's urban residents rely on such transit. However, many governments are going in the opposite direction, by subsidizing private car use in cities through expensive car-oriented infrastructure and fuel subsidies, adding to traffic congestion. Many also invest in highways and ring roads, without ensuring urban-street and mass-transit connectivity, constraining cities' functioning.

The focus should be on connecting existing urban areas before building ring roads. (Ring roads usually make things worse in the long run by inducing travel demand.) Governments should plan in advance for adequate street space in a connected grid, including road reserves for later paving or widening.⁵ Some solutions are underused in African cities, such as urban rail transit, bus rapid transit, truck-only lanes, park and ride, congestion pricing and betterment levies. But good practices are seen in bus rapid transit programmes in Lagos, Cape Town and Johannesburg, and urban light rail in Addis Ababa, Rabat and Johannesburg's Gautrain. The demonstration effect of urban light rail is such that Nigeria and Senegal are planning their own (and the Gautrain is adding a further 200 km).⁶

BOX 6.3 SOME NOTABLE PROGRAMS AND PRACTICES IN HOUSING AND LAND DELIVERY

ETHIOPIA. Since 2006 the Integrated Housing Development Program funded through government bonds has led to the construction of more than 396,000 condominium housing units of various sizes. The program was funded through government bonds from the Commercial Bank of Ethiopia amounting to \$153 million by the end of 2011. Building materials and equipment were exempted from taxes in a decision that helped to increase supply of affordable housing units and reduce their cost, making them affordable to an appreciable proportion of low-income groups.

MOROCCO. The government has developed several programs to improve access to housing, allowing it to declare 51 out of 85 townships and urban centres slum free between 2004 and 2014. About 306,000 households saw their living conditions improve. Construction of new housing units cut the estimated deficit of 1.24 million units in 2002 by half by 2013. The target for 2016 is to reduce it to 400,000 (about one third). Since 2010 736 contracts have been signed to deliver 1.26 million social housing units. By 2014, 366,000 units were under construction.

SOUTH AFRICA. In 1994–2014 the government spent about R125 billion (\$8.87 billion) on human settlement development and R16 billion (\$1.14 billion) on other linked infrastructure projects. The government, with the private sector, delivered 5,677,614 formal houses from 1994, subsidizing more than 3.7 million units for low-income households, enabling 12.5 million people to access secure accommodation.

Source: Ministry of Urban Development, Housing and Construction (2014) ; Kingdom of Morocco (2014); Department of Human Settlements (2014).

EASE HOUSING BOTTLENECKS

African cities face major gaps in housing, with the majority of the region's urban population living in informal settlements (often slums). Housing influences the options and choices open to industrial workers. It also accounts for the largest share of land use and determines urban form. If informal settlements continue to mushroom, accessibility and urban spatial development will be hurt, so it is important to relieve constraints on the construction industry, access to serviced land, regulatory barriers and mortgage finance.

These supply-side interventions must be paired with social housing programmes to translate housing needs into effective demand for the urban population not yet able to afford formal housing. National housing programmes that offer subsidized housing have helped to address needs in Ethiopia, Morocco and South Africa (box 6.3).

African governments need to instigate and coordinate investments in urban infrastructure, particularly in electricity and transport, both to support industrial enterprises and to meet urban populations' needs.

In light of targets to expand manufacturing, low-income housing areas need to be linked to jobs through low-cost mass transit and pedestrian infrastructure. Gated communities that limit access to main streets and arterials undermine accessibility should be prohibited. New formal developments need to comply with planned street grids and the priorities of ensuring access for all.

PRIORITIZE STRATEGIC INFRASTRUCTURE INVESTMENTS

The quality and accessibility of urban infrastructure affect industrial outcomes. African governments need to instigate and coordinate such investments, particularly in electricity and transport, both to support industrial enterprises and to meet urban populations' needs.

Within cities poor connectivity, urban mobility and infrastructure seriously diminish agglomeration economies, hurting industrial productivity and job seekers' prospects. Lack of reliable energy is still a key bottleneck for industrial firms.

Investment in roads and logistics to connect strategically located cities is a step towards a national urban system supportive of economic development, enabling better inter-city connections for balanced national development and industry's better access to markets, labour and other factors of production.

PRIORITIZE INDUSTRY IN PLANNING FOR LOCAL ECONOMIC DEVELOPMENT

Industrial development needs to be prioritized in urban planning, management and governance. Cities should develop industrial action plans mirroring national industrial and national urban policies, be guided by the national development plan, and factor in the competitive advantages of certain cities.

Such plans will be more effective when part of a local economic development plan that is strategic

and inclusive and that leverages local economic advantages and resources. Unlike traditional “smoke-stack chasing” policies that demand heavy subsidies or tax breaks, most local economic development plans now focus on enhancing the overall efficiency of industry and business through land use policies and smart investments in local assets and resources. They are not one-off activities, but a continuing process for cities to invent—and then reinvent—themselves to adjust to new realities shaped by industrial, technological and spatial shifts (box 6.4).

6.3 IMPLEMENTING THE POLICIES

Budgetary support and administrative arrangements should mirror a coordinated structure for urban and industrial development policies. Disconnects between the elements are often the reason for failures in implementation. So if budgetary or administrative support cannot be arranged to fit policies, the policies must be altered. Strong links between the two sides require a multi-level (continental, national and subnational) and multi-sectoral approach.

National and subnational budgetary processes, particularly for capital projects, should be based on coordinated urban and industrial policies. Investments should be prioritized on industrial and associated spatial targets.

FINDING THE FINANCING

Empowering urban local authorities with financial capacity to better plan and manage cities is crucial if cities are to better support industrial development. The Addis Ababa Action Agenda, for instance, recognized the role of subnational actors in financing for development. But decentralization

without financing, and weak local capacities for financial management and revenue generation, challenge many African cities. The responses are to pair decentralized responsibilities with local capacity building, and to ensure funding through transfers and local ability to levy taxes and fees. Larger cities could be permitted to access external finance, including through municipal bonds. Public spending in investment and procurement has an important leveraging role in promoting local content, enterprise development and supply chains progressively increasing the role of urban local authorities.

Land value capture and mechanisms for land-based financing can link urban investments with public revenues under the right land registration and valuation system. Updated value-based annual land taxes, public land leases, capital gains taxes, betterment levies, developer fees and sales of development rights hold huge potential for efficiently and fairly linking urbanization to public revenues.

Improved participation and transparency in budgeting and expenditures offers a way to build government trust and improve tax compliance. Participatory budgeting, where residents have direct control of a subset of budgetary expenditures through voting, offers opportunities, especially by ensuring more inclusive outcomes. It also engenders public involvement in local economic and industrial development, and may well help to deliver jobs and social benefits for all groups, especially the vulnerable.

Land value capture and mechanisms for land-based financing can link urban investments with public revenues under the right land registration and valuation system.

Implementing urban and industrial policies in a coordinated manner requires a sound institutional framework matching the structure of the policies. Many African countries still face institutional constraints for coordinating the two strands—urban and industrial.

The private sector has major opportunities in executing industrial policies. Private capital can help to meet the development-finance needs of African countries, along three channels. First, in domestic financing and external capital, African economies need to tap private capital for investing in infrastructure, but also need to remove impediments ranging from a missing legal and regulatory framework for public-private partnerships (PPPs) to weak technical and institutional capacity for designing and managing PPPs. Second, it will be useful to involve private actors in discussing and prioritizing urban and industrial policies, within the context of developing a new generation of such policies. Third, and most important, it is vital to coordinate investment in infrastructure in cities and industrial zones to ensure that public investment crowds-in private investment, so as to achieve synergies and economic development aligned to priority subsectors and locations.

COORDINATING PLANNING AND EXECUTION

Implementing urban and industrial policies in a coordinated manner requires a sound institutional framework matching the structure of the policies. Many African countries still face institutional constraints for coordinating the two strands—urban and industrial.

Urban development and management form a complex, multi-sectoral process and involve multiple agencies at different levels—city, metropolitan and subnational. The core urban mandate typically rests with the lead urban development agency, which has responsibility for a raft of functions including urban form and structure at the different levels; housing policy for sheltered accommodation and

related public and social services; urban land policy to guide growth patterns and to control speculation; administrative and political development, which entails creating optimal geographical administrative units and subnational authorities; and support for these bodies with financial, managerial and institutional capacities.

Urban development is also influenced by many other sectors and subsectors, especially industry, construction, infrastructure, energy and telecommunications. The dispersal of such competencies across entities—and at times the overlap between them—is a challenge for institutions.

Lead urban development agencies, though increasingly recognizing the role of cities and urban systems as engines of growth, generally focus on land and housing—which, however important, are not the crucial link between economic planning and industrialization. The multiple geographical scales of urbanization add another dimension to complexity, making coordination necessary not just between urban and industrial development bodies, but also between the different government levels.

A cross-cutting implementation platform between the urban and industrial sectors would help to align their priorities and strengthen the economic agenda within the urban development framework. A policy note or white paper to articulate the key principles of drafting urban and industrial policies, and setting up a such a platform, would be extremely useful.

Coordination is also needed in national industrial and spatial planning. The former translates priorities and targets into projects and programmes, and links them to budgets. Analysis of industrial conditions and spatial factors, including infrastructure, labour and raw materials, is important for formulating industrial programmes and strategies. This is also an important stage where locational preferences of industries are part of the programming process. The exercise can benefit greatly from a national spatial development framework that elaborates the national urban policy and vision in a hierarchy of cities, development areas and corridors. Coordination at this stage allows policymakers to create an industrial spatial plan by overlaying the urban development and industrial priorities. It also allows them to direct investment in infrastructure and SEZs in a manner that advances urban and industrial priorities and targets.

Given urbanization's cross-cutting nature and complexity, coordination with sectors and subsectors other than industry is also crucial. Energy, transport, communications and technology are, among others, important in shaping the urban development landscape. A mechanism needs to be set up for coordinating urban and industrial development planning. If planning on both sides is to be linked, multiple sectors, subsectors and actors need to be part of planning and executing policies. This mechanism should also provide for consulting with and involving private stakeholders, notably leaders in manufacturing and real estate.

The agendas on both sides are multi-scale and need to be managed at different levels, from local to national. Although decentralization remains important and is in progress in many countries, competencies in economic development lie primarily at national level, and many local authorities lack the interest or competence to formulate and execute economic programmes. Many cities, outside South Africa and Northern Africa, have little local economic planning experience and where they do, are too limited in territorial and substantive scope to have much impact. Moreover, such initiatives rarely interface with national and subnational priorities. Thus coordination at national level to align urban and industrial priorities should involve subnational authorities and be accompanied by technical, financial and institutional support. National plans are only as good as their implementation, and local actors are critical in implementation.

Understanding the complexities of urbanization and its links to industrial development—in order to assess policy options and trade-offs, to design good policy strategies and to measure impacts—requires

evidence-based data. Moreover, urban development and long-term economic growth targets need a framework for linking them, one grounded in sound methods and a matrix of indicators. But spatial economic data, especially at subnational level, are lacking for employment, spatial economic structure, agglomeration economies, land and real estate markets, subnational revenues and expenditures, congestion and mobility (including public transit) and infrastructure quality. Cooperation between urban agencies and national statistical offices could, however, improve matters, possibly including think tanks.

Understanding the complexities of urbanization and its links to industrial development—in order to assess policy options and trade-offs, to design good policy strategies and to measure impacts—requires evidence-based data.

In conclusion, it is critical to develop guidelines and tools on how to coordinate the formulation and execution of urban and industrial policies, guided by national targets of growth and transformation. While policymakers may appreciate the need to link these policies, they also need to strengthen capacities. Based on practices that have worked in Africa and elsewhere, it will be important to support states and partnerships among regional economic communities.

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ENDNOTES

- 1 The myths are the following. Policies to improve cities will stimulate migration and only make cities more overcrowded. Policymakers should focus on rural development to slow urbanization. African cities are cheap. Good cities will spring up naturally under free market conditions. Industry will do better if it is separated from the urban dysfunction of cities. Urban issues are social issues, not economic issues.
- 2 "Product space" as elaborated by Ricardo Hausmann refers to a network of related products and sectors that feature relatedness in shared inputs and similar factors of production.
- 3 Primary cities studied across regions have been shown to retain their central importance over 100 or more years, in part due to accumulated physical and institutional investments (Henderson, Shalzi, & Venables, 2001).
- 4 New spatial and digital data can provide inputs into "smart" urban planning and design.
- 5 New York University and UN-Habitat are both piloting innovative approaches to road planning in advance of growth. See http://marroninstitute.nyu.edu/uploads/content/A_New_Plan_for_African_Cities_Oct_19_2015.pdf and <http://unhabitat.org/urban-initiatives/initiatives-programmes/planned-city-extensions/>.
- 6 Habitat III Secretariat, UNECA and UN-Habitat (2017)

STATISTICAL NOTE



This year's Economic Report on Africa is based on the latest updated and harmonized data from various sources, including questionnaires developed by the authors. The main economic and social data variables are obtained from the United Nations Department of Economic and Social Affairs (UN-DESA) database. Data from the statistical databases of the International Monetary Fund (IMF), Economist Intelligence Unit (EIU), United Nations Conference on Trade and Development (UNCTAD), World Bank, and some government departments in African countries are also used for various economic indicators. Data published in the report may differ from those of previous editions due to recent assumptions and revisions.

The UN-DESA Global Economic Outlook database provides comparable data on GDP growth for all African countries, except Seychelles and Swaziland, for which data are obtained from the EIU database. Real GDP growth rates are generated using country data with 2010 as the base year. Subregional inflation rates for country groupings are weighted averages, where weights are based on GDP in 2010 prices. Baseline scenario forecasts are based partly on Project LINK and the UN-DESA World Economic Forecasting Model (WEFM).

Social data are based on the latest available data from the ECA's African Centre for Statistics (ACS), African Development Bank, UNICEF, UN-DESA, UNDP, United Nations Statistics Division (UNSD), United Nations Educational, Scientific and Cultural Organization (UNESCO) and World Bank's World Development Indicators and the PovcalNet databases. Employment and productivity figures are from the ILO's ILO-Key Indicators of the Labour Market (KILM) and the World Employment and Social Outlook databases, while data on trade (exports and imports) are from the UNCTAD and World Trade Organization (WTO).

Countries are classified into geographical regions and country groupings. Unless otherwise stated, the data cover 53 African countries (excluding South Sudan due to unavailability of historical data). Geographical regions are: East, Central, North, Southern and West. Parts of the analysis are also based on country groupings of oil importers, oil exporters, mineral-rich and mineral-poor countries. Oil exporters are those with oil exports at least 20 per cent higher than their oil imports and include Algeria, Angola, Cameroon, Chad, Congo Republic, Côte d'Ivoire, Congo DRC, Equatorial Guinea, Gabon, Ghana, Libya, Niger, Nigeria and Sudan. Oil importers include Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Central African Republic, Comoros, Djibouti, Egypt, Eritrea, Ethiopia, The Gambia, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe. Mineral-rich countries are those where mineral exports account for more than 20 per cent of total exports and include Algeria, Benin, Botswana, Burkina Faso, Central African Republic, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Guinea, Lesotho, Liberia, Mali, Mauritania, Madagascar, Mozambique, Namibia, Niger, Rwanda, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Zambia and Zimbabwe. Mineral-poor countries include Angola, Burundi, Cameroon, Cabo Verde, Chad, Comoros, Republic of Congo, Côte d'Ivoire, Egypt, Ethiopia, Gabon, Gambia, Ghana, Guinea-Bissau, Kenya, Libya, Malawi, Mauritius, Morocco, Nigeria, São Tomé and Príncipe, Senegal, Seychelles, Somalia, Swaziland, Tunisia and Uganda. Groupings are based on UNCTAD trade data for 2013 and 2014 (SITC 33 for oil and SITC 27+28+32+34+35+68+667+971 for minerals).

Agricultural commodity exporters are countries that export more than 20 percent of total exports of agricultural commodities and include Benin, Burkina Faso, Burundi, Côte d'Ivoire, Cabo Verde, Cameroon, Central African Republic, Egypt, Ethiopia, Ghana, Kenya, Madagascar, Malawi Mali, Mauritania, Mauritius, Morocco, Namibia, Rwanda, São Tomé and Príncipe, Seychelles, Sudan, Tanzania, Uganda and Zimbabwe.

The thematic part of the report employs primary data and information collected, harmonized and analysed by ECA staff through questionnaires. Several interviews were conducted in 11 case study countries: Cameroon, Côte d'Ivoire, Republic of the Congo, Ethiopia, Madagascar, Morocco, Mozambique, Nigeria, Rwanda, South Africa and Sudan.