West African Studies

Africa's Urbanisation Dynamics 2022

THE ECONOMIC POWER OF AFRICA'S CITIES

OECD

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AFRICAN DEVELOPMENT BANK GROUP
GROUPE DE LA BANQUE AFRICAINE DE DÉVELOPPEMENT

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Foreword

Urbanisation is one of the most profound transformations that the African continent will undergo in the 21st century. Since 1990, the number of cities in Africa has doubled — from 3 300 to 7 600 — and their cumulative population has increased by 500 million people. Africa's cities are the most rapidly growing cities in the world; they are the youngest and they are changing fast. Their impact on Africa's economic, social and political landscape in the coming decades is likely to be profound. Urbanisation, therefore, presents immense opportunities to accelerate progress towards the 2030 and 2063 development agendas and for promoting continental integration in the context of the African Continental Free Trade Area (AfCFTA). For African policy makers, it also entails very important challenges in planning, managing and financing urban growth, both at the local and the national levels. In many places in Africa and beyond, there is a prevailing negative perception of the externalities of urbanisation and its impact on development. This has slowed policy processes to make urbanisation a central part of Africa's development strategies.

This report presents compelling evidence — from 2 600 cities across 34 countries — that urbanisation in Africa contributes to better economic outcomes and higher standards of living. It shows that in most socio-economic dimensions, Africa's cities significantly outperform the countries in which they are located, and that the gap between the performance of African cities and the national averages is larger than in many other parts of the world. One of the most underappreciated achievements of African cities over the last 30 years has been that, despite growing by 500 million people, they have maintained their economic performance, providing several hundred million people with better jobs and improved access to services and infrastructure. Positive spillovers from urbanisation are also spreading to rural areas, which benefit from proximity to cities.

Nevertheless, economic and political constraints continue to limit cities' potential to contribute to economic growth and social development. Too many people have been left behind. The need for new approaches tailored to local dynamics is urgent, and the challenges ahead are very important. This report underlines the importance of investing in better planning in large urban centres. Meanwhile, it shows the potential of enlisting small and mid-sized cities as a means of accelerating job creation, productivity and service delivery, and of developing connectivity and clusters of cities to promote economic integration. It also argues for the crucial importance of co-ordinated policies and the need to anchor the role of cities in national development planning. Finally, local governments need greater fiscal and administrative capacity so they can play a more active role in economic development.

Current United Nations projections indicate that Africa's cities will grow by an additional 900 million inhabitants between now and 2050, welcoming two-thirds of Africa's population. This urban expansion not only demands a need to plan, manage and finance infrastructure and public services, it will require strategies that promote employment, stimulate green technology uptake and digitalisation, improve competitiveness and ensure climate neutrality and sustainability. National development agendas need to acknowledge the important role of cities in promoting economic development, boosting resilience and addressing climate change and future sustainability challenges. Coherent policies are called for to ensure that national strategies are effective at the local level.

However, confronting the challenges of Africa's urban growth also inherently entails opportunities to envision an urban future that may not follow the same path as the Americas, Asia, Europe, and the rest of the world. Cities of the 21st century will be different from the cities of the 20th century. African cities, and in particular its small and mid-sized cities, are significantly less entrenched in carbon-intensive models of development than cities in many other regions. Meanwhile, significant investments in urban infrastructure have yet to be made, and the population of African cities is mainly young. These are important foundations on which to build new models that are more climate neutral, more inclusive and more liveable.

While this report presents one of the most comprehensive data analysis on African cities' economic performance to date, it also highlights the need for more evidence and analysis to support policy making. New challenges, such as recovery from the COVID-19 pandemic and new scales of economic and political organisation — including the African Continental Free Trade Area

(AfCFTA), urban governance and regional development — will increasingly demand deeper understanding of local contexts. Better data and evidence is an important basis for making policy processes more forward-looking, transparent and inclusive. Shaping the future of African cities and thus of its people, territories and countries depends on the contribution of all stakeholders at all levels.

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Abbreviations and Acronyms

AfCFTA	African Continental Free Trade Agreement
AfDB	African Development Bank
AFD	French Development Agency
ALGA	African Local Government Academy
AU	African Union
BOAD	West African Development Bank
BRT	Bus Rapid Transit
CELs	City-level Experimentation Labs
DHS	Demographic and Health Surveys
EUR	Euro
FDI	Foreign direct investment
GDP	Gross Domestic Product
GHG	Greenhouse gas
GSS	Ghana Statistical Services
ICT	Information and communication technologies
IDP	Internally displaced persons
LED	Local Economic Development
LSMS	Living Standard Measurement Surveys
NRGI	Natural Resource Governance Institute
PEFA	Public Expenditure and Financial Accountability
PPP	Purchasing Power Parities
SDAU	Strategic Plan for the Development of Greater Lomé (Schéma directeur d'aménagement et d'urbanisme)
SEZ	Special Economic Zone
SME	Small and Medium Enterprises
UCLG Africa	United Cities and Local Governments of Africa
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UN-Habitat	United Nations Human Settlements Programme
USD	United States Dollar
WDI	World Development Indicators
XOF	West African CFA franc

Country Codes

AGO	Angola
BDI	Burundi
BEN	Benin
BFA	Burkina Faso
BWA	Botswana
CAF	Central African Republic
CIV	Côte d'Ivoire
CMR	Cameroon
COD	Democratic Republic of the Congo
COG	Republic of Congo
COM	Comoros
CPV	Cabo Verde
DJI	Djibouti
DZA	Algeria
EGY	Egypt
ERI	Eritrea
ETH	Ethiopia
GAB	Gabon
GHA	Ghana
GIN	Guinea
GMB	Gambia
GNB	Guinea-Bissau
GNQ	Equatorial Guinea
KEN	Kenya
LBR	Liberia
LBY	Libya
LSO	Lesotho
MAR	Morocco
MDG	Madagascar
MLI	Mali
MOZ	Mozambique
MRT	Mauritania
MUS	Mauritius
MWI	Malawi
NAM	Namibia
NER	Niger
NGA	Nigeria
RWA	Rwanda
SDN	Sudan
SEN	Senegal
SLE	Sierra Leone
SOM	Somalia
SSD	South Sudan
STP	São Tomé and Príncipe
SWZ	Eswatini
SYC	Seychelles
TCD	Chad
TGO	Togo
TUN	Tunisia
TZA	Tanzania
UGA	Uganda
ZAF	South Africa
ZMB	Zambia
ZWE	Zimbabwe

Executive summary

A new perspective on Africa's urban economy

The policy debate on urbanisation in Africa has long suffered from a paucity of robust evidence. This report provides a new perspective on the economy of African cities, based on the most comprehensive analysis of data on African cities to date. It uses information from more than 4 million individuals and firms in 2 600 cities across 34 African countries to describe the economic performance and social conditions in cities of different sizes across the continent.

African cities outperform the rest of their countries in almost all dimensions

Cities are attractive because of the job opportunities they provide. Hourly wages in large cities are more than twice as high as they are in rural areas. While the share of adults without any employment is slightly lower in cities than in rural areas, underemployment is less prevalent, as urban workers work 30% more hours per week than rural workers.

Education opportunities, similarly, are better in cities than in rural areas. Depending on the size of the city, young city dwellers receive on average between 2.5 and 4 years more of education than young rural residents. This will have lasting consequences, because a good education generates economic and social benefits throughout a person's lifetime. Moreover, the rise in education levels due to urbanisation creates the human capital base to allow the transition to a skilled economy. Already today, the share of skilled jobs in cities is approximately 2.5 times higher than in rural areas.

More generally, cities facilitate the provision of infrastructure and of public and private services. Of households in large cities, 80% are connected to the electricity grid, whereas only 20% of households in rural areas have access to electricity. Approximately half of all urban households hold the title to their house, but only 20% of rural households do. Likewise, the percentage of individuals who live in a household with a bank account is more than 50% in large cities and almost 40% in small cities, but below 20% in rural areas.

Quite apart from offering better economic opportunities and higher living standards, cities are incubators of social and cultural change. For example, they facilitate the demographic transition, because fertility rates are more than one-third lower in large cities than in rural areas. Correspondingly, cities have more favourable dependency ratios.

Small and mid-sized cities deliver many of the benefits of larger cities

Most indicators analysed in this report are correlated with city size. Larger cities perform better than small cities, while small cities are well ahead of rural areas. The gaps between cities of different sizes tend to be smaller than the gap between cities and rural areas. For most outcomes, the consequences for those who move from a rural area to a city of fewer than 50 000 inhabitants are greater than for those people moving from a city of fewer than 50 000 inhabitants to a city of more than 1 million inhabitants. This indicates that even small cities deliver many of the benefits of urbanisation, ranging from better service and infrastructure provision to more advanced economies.

One-third of Africa's per capita GDP growth is due to urbanisation

Cities generate agglomeration economies that increase the productivity of urban firms and workers. As cities grow in population size, the agglomeration economies that they generate increase, which in turn leads to GDP growth. Based on estimates of agglomeration economies in Africa and recent population growth rates of cities, it is possible to approximate the effect that urbanisation has on GDP growth. A conservative estimate suggests that urban population growth contributes 0.33 percentage points to the average annual per capita GDP growth in Africa. This is equivalent to approximately 29% of the average annual per capita GDP growth across Africa between 2001 and 2020.

Urbanisation has improved access to services, infrastructure and economic opportunity for hundreds of millions of people

Africa's urban population has tripled in size since 1990. Despite absorbing 500 million new urban residents,

cities in Africa have continued to perform well relative to rural areas. The evolution of most indicators in urban and rural areas followed national trends, and the gap between cities and rural areas has remained roughly constant. This shows that cities were able to integrate millions of people without a measurable decline in aggregate economic performance or living conditions. For example, between 1990 and 2020, approximately 390 million urban residents have been connected to the electricity grid. Thus, even though African cities fall short in many ways, urbanisation has improved the access to services, infrastructure and economic opportunities for hundreds of millions of people.

In the face of dramatic population growth, African cities have maintained a good economic performance relative to the rest of their countries, which is in itself an achievement. However, despite the benefits it offers, urbanisation has not resulted in a sustained transformation of cities. African economies have grown only slowly since the 1990s, and key indicators of Africa's urban economy have improved equally slowly. For example, the share of skilled jobs in cities has remained largely constant, and ownership rates of durable consumer goods, such as cars and refrigerators, have increased little or not at all.

Realising the economic potential of African cities

Urbanisation is an opportunity for Africa

The new set of indicators shows the impressive benefits from urbanisation for individuals and businesses in Africa. While a transformation on the scale of Africa's urbanisation necessarily has its downsides, they are outweighed by the economic opportunities and by the improved living standards that cities generate. Governments should treat urbanisation as an opportunity and manage it with the goal of making its benefits available to as many people as possible. That means investing in large urban centres, but also strengthening small and mid-sized cities that serve as hubs for surrounding rural communities.

Rural areas benefit from proximity to cities

Cities provide rural residents and businesses access to services, infrastructure and markets. The integration of the rural economy into rural-urban value chains encourages rural innovation and diversification. It is thus not surprising that rural areas close to cities tend to perform better than rural areas that are more remote. For example, the share of rural households that has a bank account is twice as high among rural households that live within 5 kilometres of a city as among those that live 30 kilometres from the closest city.

Since 1990, the number of cities in Africa has more than doubled, from 3 300 to 7 600. Thousands of new cities have emerged, often in rural areas with high population densities. They provide access to services and infrastructure for rural residents and firms that would otherwise be far from the closest urban centre. Urbanisation has thus facilitated the economic and social transformation of rural areas, too. In particular, the emergence of a large number of small cities has been important for linking rural and urban areas. For more than two-thirds (68%) of the rural population in Africa, the closest city has fewer than 50 000 inhabitants.

Clusters of cities create new pathways for the development of urban economies

Throughout Africa, clusters of cities are emerging. While urbanisation rates were low, African cities were located far from each other and served primarily as national administrative centres and gateways for resource exports to global markets. As the number and size of cities in Africa grows, cities are increasingly located close to each other. In 2015, Africa had 31 city clusters with more than 2.5 million urban residents within 100 kilometres of each other, and six city clusters with more than 10 million urban residents within 250 kilometres.

Within clusters, cities benefit economically from close proximity to each other. This allows small cities to attract specialised industries and perform economic

functions that only larger cities can otherwise perform. Yet, not all cities in close proximity function as economically integrated clusters. To do so, they need good infrastructure links that facilitate economic exchanges between cities.

Some of the most important clusters of cities span multiple countries. These clusters stand to benefit from the reduction in trade barriers after the implementation of the Africa Continental Free Trade Agreement (AfCFTA). Yet, even cities beyond cross-border clusters can be major beneficiaries of the AfCFTA. In particular, the reduction in intra-African trade barriers will benefit the tradable sector in cities and will reduce prices for urban consumers. However, the opportunities offered by implementation of the AfCFTA need to be matched by cross-border infrastructure investments and other measures to promote trade.

National development plans need to centre on the urban economy

Africa's economic future lies in its cities. National development strategies should reflect the opportunities offered by urbanisation and include measures to put them to use. Four priority areas are particularly important:

1. Each year, a large number of jobs needs to be created to provide employment for young and fast-growing urban populations. Governments should aim to encourage solutions that provide jobs and to support the sectors that create jobs in urban areas.
2. The performance of an economy is determined by its productivity. To increase the productivity of urban areas, governments should invest in cities, promote the growth of highly productive sectors, such as manufacturing and tradable services, and remove barriers to the creation and scaling up of urban businesses.
3. Each country has a unique system of cities of different sizes and different economic specialisations. Effective national policies take this into account and develop targeted policies that respond to the specific needs of different cities and to the roles they play in a national economy.
4. National policies affecting cities need to be coordinated across levels of government and across sectors to make sure they reinforce each other. Moreover, national policies need to ensure that local governments have the means (fiscal and otherwise) to play an active role in economic development.

To develop targeted policies for cities and to adapt to evolving contexts, governments need up-to-date information on the state of urban economies. This report demonstrates how robust subnational indicators can contribute to a better understanding of cities. National statistical systems must be enhanced to be able to produce timely statistics that can be disaggregated at the subnational level.

Local governments need greater capacities and responsibilities to support economic development

As cities grow in size, local governments become more important for economic development. Local governments know their cities best and can target policies better to local needs than other levels of government. They are also more directly accountable to their local population and have a strong interest in the good performance of their city. Yet, in most African countries, local governments have weak administrative capacity and responsibilities that are not clearly defined. This makes it difficult for them to pursue effective economic development policies. Devolving statutory powers to local governments and building local capacity is therefore essential to allow local governments to support economic development effectively.

Moreover, local governments in Africa need to prioritise economic development in their policies. In many fast-growing economies (notably China) local governments consider economic development their central responsibility. They develop infrastructure, promote their cities to investors, connect businesses with universities, assemble land for new developments and assist firms with administrative procedures. Providing similar levels of support to local economies in Africa would boost economic growth.

Local governments that aim to develop local economic development strategies can base them on several principles:

- Concerted policy packages that combine coordinated interventions are more effective than isolated measures. Effective local economic development strategies involve multiple policy sectors as well as governmental and non-governmental actors.
- Different places have different competitive advantages that can be the basis for economic development. Identifying and utilising these competitive advantages is a key feature of many successful local economic development strategies.
- Local economic development policies that aim to upgrade existing sectors and activities are more likely to succeed than local economic development policies hoping to attract entirely new economic sectors. Local governments need to work with local businesses to learn about economic opportunities and develop policies to use them.

- Cities contribute to economic diversification at the national level by developing distinct economic specialisations. Most highly diversified countries are not economically uniform. Typically, they are home to many cities with distinct economic specialisations that, in the aggregate, create a diversified economy.
- Universities and other higher education institutions can be sources of innovation and entrepreneurship. They should be encouraged to co-operate closely with local businesses, for example by providing educational programmes that respond to businesses' needs or by setting up business incubators.

New sources of funding for local governments are indispensable

Local governments in Africa have exceptionally low fiscal resources. The share of own-source revenues in their budgets is small, and transfers from other levels of governments are limited and often unstable. Moreover, the overwhelming majority of local governments lacks access to credit for financing investment, even if that investment offers high returns. As a consequence, local governments struggle to develop administrative capacity. They also often lack the fiscal capacity to invest, even when investments would be economically and socially beneficial and generate higher tax revenues in the long term.

No single solution can meet the funding needs of local governments. National governments must thus scale up their financial support to local governments, giving them the fiscal stability to undertake long-term fiscal commitments, such as major investments in infrastructure. Meanwhile, local governments need to collect greater own-source revenues, by improving the return from existing tax instruments and by developing new sources of revenue. In many countries, this will require that local governments be granted greater powers of taxation.

However, even significantly increased transfers and tax revenues are unlikely to meet African cities' investment needs. National and local governments should work together to enable local governments to use debt financing for infrastructure investments. A first step in this process would be to provide credit to local governments through public investment funds. Such funds are a source of financing for local governments in their own right, but they can also be used to give local governments experience with debt financing that can help to prepare them to access other forms of credit.

1

New evidence on Africa's urban economy

This chapter presents new indicators on the economy of African cities that are based on data from more than 4 million individuals from across Africa. The indicators provide a new perspective on African cities that is unprecedented in its breadth and level of detail. They make it possible to compare the performances of cities of different sizes, document the corresponding evolution over time and analyse the effects of cities on nearby rural areas. The results show the positive impact that urbanisation has on economic performance and quality of life in almost all measurable dimensions.

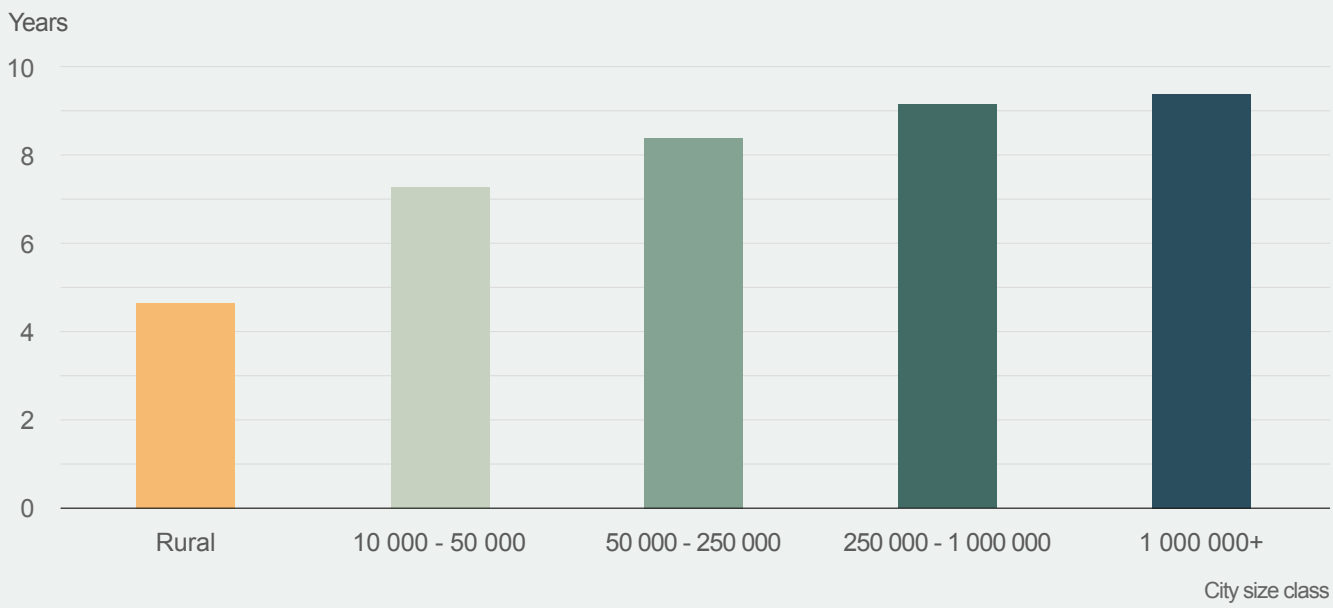
In Brief

New evidence on Africa's urban economy

The policy debate on urbanisation in Africa has long suffered from a paucity of reliable data. This chapter presents new evidence on African cities based on data from more than 4 million individuals across 2 600 cities in 34 countries, working both in the formal and in the informal economy. Matching individuals to cities based on the co-ordinates of their place of residence makes it possible to describe African cities at an unprecedented level of detail.

- The data shows that urbanisation in Africa has contributed substantially to better economic outcomes and living standards. Within their countries, African cities outperform in most dimensions. Hourly wages in large cities are twice as high as in rural areas, and underemployment is less prevalent, since urban workers work 30% more hours per week than rural workers. The share of workers in skilled occupations is approximately 50% among men and 25% among women in midsized and large cities, but only 18% and 11%, respectively, in rural areas.
- One of the key advantages of cities is that they facilitate access to services and infrastructure. Children in large cities receive almost five years more education on average than children in rural areas. In large cities, 80% of households are connected to the electricity grid, but only 20% of households in rural areas are. More than half of all households in large cities have a bank account, whereas the share in rural areas is less than 20%.

Figure 1.1. Average years of schooling of residents aged 18-29 by city size



Note Based on Demographic and Health Surveys from various years between 2010-19 for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE.

Source OECD/Sahel and West Africa Club (SWAC) calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

- Fertility rates in large cities are 37% lower than in rural areas, and the difference in dependency ratios (i.e. the ratio of working to non-working age population) is even larger. Lower dependency ratios imply higher per capita GDP levels, because each working-age resident has to support fewer non-working-age residents.
- Small and midsized cities perform on average below the level of large cities but are still well ahead of rural areas. Among most indicators, the gap between rural areas and small cities with 10 000 to 50 000 inhabitants is larger than the gap between small cities and large cities with more than 1 million inhabitants.
- Urbanisation also benefits rural areas, because cities provide access to markets, infrastructure and services to rural areas. Proximity to cities is strongly correlated with better outcomes in most dimensions that are analysed in this chapter. As almost 4 500 new cities emerged in Africa between 1990 and 2015, millions of rural residents gained access to economic opportunities, services and infrastructure provided by nearby cities.
- Since 1990, African cities have gained approximately 500 million inhabitants, without losing their economic advantages or their lead in infrastructure and service provision. Urbanisation has thus improved the quality of life of millions of rural-urban migrants. As larger cities tend to perform better than smaller cities, the urban population growth caused by urbanisation has also benefited the urban residents that were already living in growing cities.
- Cities generate agglomeration economies. Firms and workers located in cities are more productive than those in rural areas and firms, and workers in larger cities are more productive than those in smaller cities. As people move from rural to urban areas and cities grow in size, the productivity of the economy increases. A back-of-the-envelope calculation suggests that productivity growth due to increased agglomeration economies from urbanisation contributes approximately 0.33 percentage points to annual per capita GDP growth in Africa. This corresponds to 29% of the average annual GDP growth in Africa from 2001 to 2020.
- Drivers of economic development, such as access to electricity, education and access to banking, have advanced in cities, in line with national trends. However, while cities consistently outperform rural areas, key indicators of the urban economy have improved only slowly since 1990s. The share of skilled jobs has remained largely constant. Likewise, the share of households owning durable consumer goods, such as refrigerators and cars, has grown slowly or not at all. Thus, urbanisation provides major economic benefits, as new urban residents gain better access to better jobs and services in cities. Further efforts are needed, however, to turn cities into engines of lasting economic growth.

Data on Africa's cities and their economies is limited in comparison with most other parts of the world. As a consequence, Africa's cities are often only perceived as overcrowded, congested and unproductive, and rapid urbanisation in in Africa is seen as a threat – or at best as a challenge that needs to be managed. This chapter disputes this perspective. It provides new evidence that urbanisation benefits Africa and has contributed to better economic outcomes and higher standards of living. While it is obvious that African cities face major challenges, the chapter shows that in most dimensions, they significantly outperform the rest of the country in which they are located. Often, the gap between the performance of African cities and the national averages is much larger than the corresponding gaps in many other parts of the world.

The chapter presents a large number of novel indicators on cities in Africa. The indicators have been derived from microdata sources containing millions of observations of individuals. Annex Table 1.A.1 provides an overview of the covered countries. They are constructed using the uniform definition of what is considered a city provided by the Africapolis database. As national definitions of cities vary, sometimes drastically, a uniform definition is a precondition for obtaining indicators that make it possible to compare countries. The data includes individuals who were surveyed regardless whether they work in the formal or

informal economy. The indicators thus provide a representative average of the formal and informal economy, without distinguishing between the two. The chapter shows large and systematic gaps in the average performance of cities and rural areas and in the average performance cities of different sizes. Despite these clear patterns, it is important to keep in mind that Africa is a diverse continent with large variations in income levels and living standards. The averages presented in this chapter show the big picture, but they also hide the variation between cities of similar size. These differences cannot be explored in detail within the scope of a chapter, but they are nevertheless important.

The chapter expands on related work to develop quantitative assessments of cities in developing countries by using geocoded microdata, including Henderson, Nigmatulina and Kriticos (2019[3]), OECD/European Commission (2020[4]), and Gollin, Kirchberger and Lagakos (2021[5]). The data used in this chapter predate the COVID-19 pandemic. As of the time of writing, it was still unclear if the pandemic will have lasting effects on African cities (see also Box 1.4).

Jobs in African cities tend to require higher skills and are better paid than in rural areas. Infrastructure is better and services are more widely available. Urban residents receive a better education, and fertility rates and dependency ratios are lower than in rural areas. Underemployment is less prevalent, as urban workers work longer hours and are more likely to be in formal employment than rural workers. Larger cities tend to perform better than smaller cities in most outcomes. The share of firms that invest in research and development (R&D), for example, increases strongly with city size. However, the gap between large and small cities tends to be smaller than the gaps between rural areas and small cities.

Even though the urban population in Africa grew by approximately 500 million people between 1990 and 2020, African cities managed to preserve their good performance. In most measurable dimensions, the gaps between rural and urban areas remained largely stable over the period. Urbanisation has provided a strong boost to economic outcomes and living standards, allowing hundreds of millions of people to move out of economically lower-performing rural areas to benefit from better economic opportunities in cities. However, it is not clear that urban economies are transforming rapidly. For example, ownership rates of durable consumption goods, such as refrigerators, have remained stable or grown only slowly in the last three decades.

Importantly, benefits from urbanisation are also spreading to rural areas. In rural areas, proximity to cities is correlated with better outcomes. For example, the average education level or the share of skilled jobs in rural areas declines strongly with increasing distance from the closest city. As almost 5 000 new cities emerged in Africa between 1990 and 2020, millions of rural residents gained access to economic opportunities, services and infrastructure provided by urban areas.

While the chapter shows that African cities do well in the context of their countries, it is clear that they face challenges. Many African cities are not well planned, lack infrastructure and provide insufficient public services, compared to cities in other parts of the world. They face increasing levels of pollution and are threatened by climate change. The high costs of doing business reduce the competitiveness of their economies, and African cities are not experiencing the rapid transformation seen in cities in other emerging economies, such as China's. African governments need to address these challenges if they want their cities to attain the levels of development attained in other parts of the world.

Despite the challenges facing African cities, the data makes clear that urbanisation in Africa provides vast economic and social benefits. Acknowledging this fact is a precondition for managing urban growth effectively. The challenges need to be addressed, but they are no argument for containing the urbanisation Africa is experiencing. Its rapid urbanisation is an opportunity that arises only once. Governments should focus their efforts on making the most of it.

Box 1.1. Data used in this chapter

The key indicators presented in this chapter are based on four distinct datasets that are processed according to the methodology described in Box 1.2. The following datasets are used to construct the indicators in this chapter:

Africapolis

Africapolis (OECD/SWAC, 2018[2]) is a database of cities across Africa. It is based on a uniform definition of urban areas and contains data on the population of all 7 721 African cities with more than 10 000 inhabitants in 2015. It provides population estimates for cities going back to 1950, and identifies their location and the footprint of their built-up areas. Cities are defined as contiguously built-up areas (with gaps of less than 200 metres between individual buildings) with at least 10 000 inhabitants.

Demographic and Health Surveys (DHS)

Demographic and Health Surveys (ICF, 1990-2019[11]) are the most extensive source of data on individuals across Africa. Since 1990, almost 150 surveys have been conducted in 32 countries, collecting information on more than 4 million individuals. As the name indicates, DHS data does not focus on economic outcomes, although it provides a considerable amount of information on economically relevant outcomes. Crucially, the DHS data is georeferenced (it provides the co-ordinates of respondents), which makes it possible to match individuals to cities defined by Africapolis.

Living Standard Measurement Study (LSMS)

Living Standard Measurement Surveys (World Bank LSMS, 2008-2019[6]) are another georeferenced microdata set. They provide information on the economic circumstances of households and are thus highly relevant for this chapter. However, country coverage is limited (geocoded surveys for six countries between 2008 and 2019 could be used) and sample sizes are much smaller (in total, well below 100 000 households). Moreover, LSMS datasets contain more country-specific elements than the DHS data and are therefore less comparable across countries than the DHS.

Enterprise Surveys

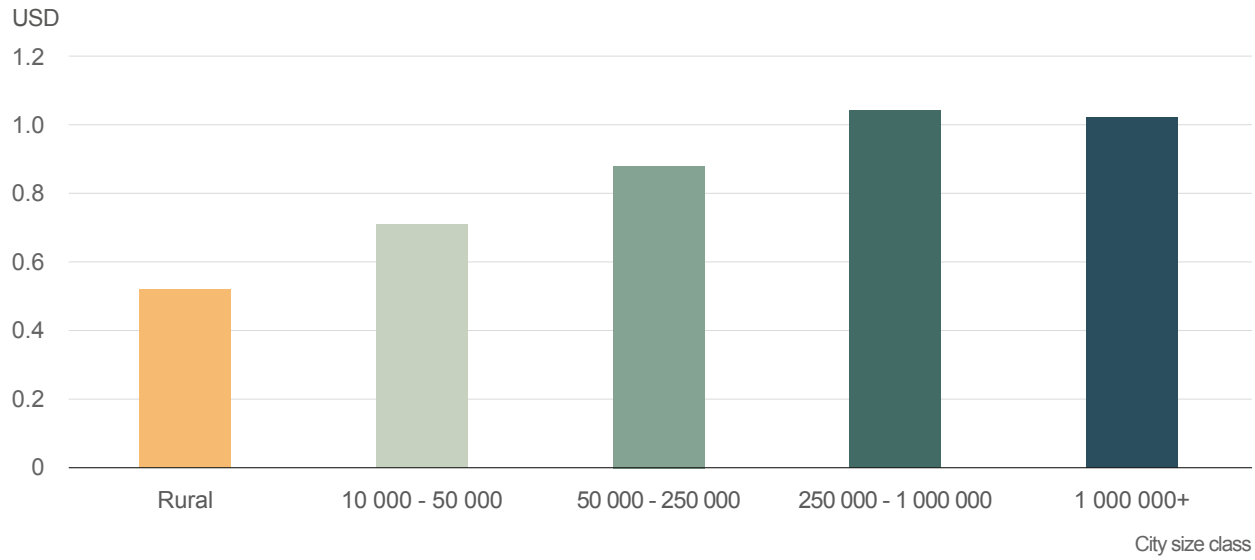
Enterprise Surveys (World Bank, 2010-2019[7]) contain information about individual firms, including key characteristics of their business activities, their employees and the bottlenecks that they face. In contrast to the DHS and LSMS, Enterprise Surveys are not georeferenced, making it impossible to associate firms with individual cities.

African cities are performing better than rural areas in many key dimensions

Income and consumption levels in cities are higher than in rural areas

Productivity levels of workers and firms in cities tend to be higher than in rural areas everywhere in the world, which is reflected in higher average wages for workers in urban areas. Africa is no exception to this pattern. Average hourly wages in the six countries for which wage data is available (ETH, MLI, MWI, NGA, TZA and UGA) are USD 0.51 in rural areas and USD 1.03 in medium-large and very large cities, a difference of approximately 100% (Figure 1.2). This wage gap is directly reflected in various measures of living standards, including consumption and wealth measures, but also in other outcomes, such as asset ownership, that are discussed below.

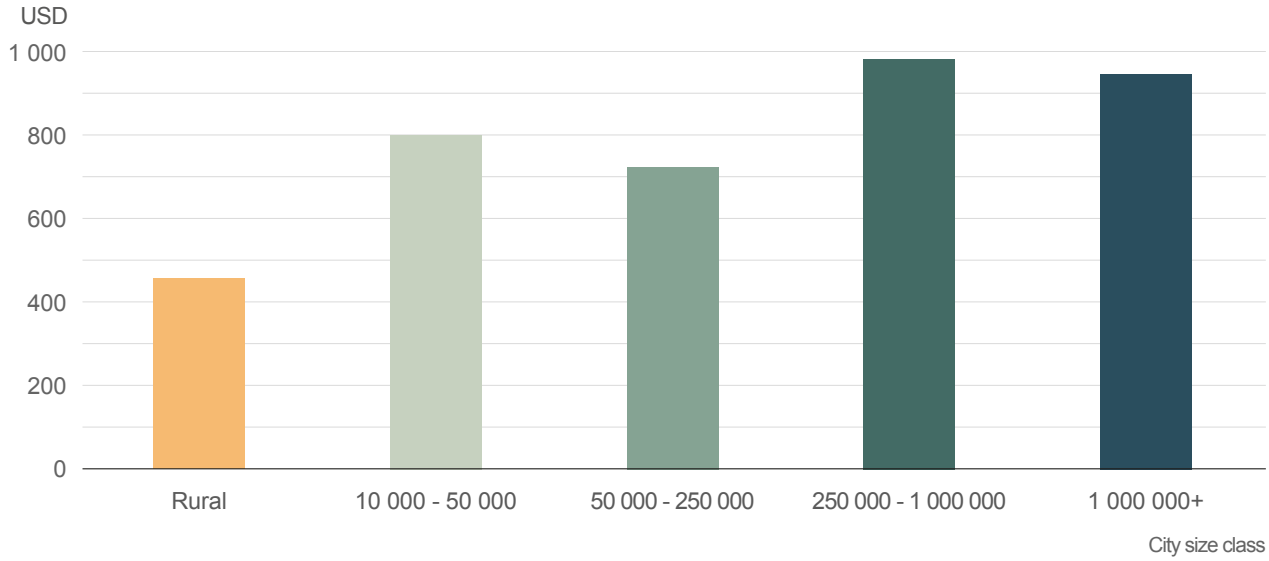
Figure 1.2. Hourly wages in cities and rural areas, 2010



Note Average based on data for ETH, MLI, MWI, NGA, TZA and UGA from 2010-19.
Source OECD/SWAC calculations based on World Bank LSMS (2008-2019[6]) and OECD/SWAC (2018[2]).

The gap in consumption levels between rural and urban areas is even larger than the gap in hourly wages (Figure 1.3), in particular the gap between small cities and rural areas. Several factors are responsible for this. As discussed below, hours worked are significantly higher in urban areas than in rural areas, which implies that the differences in total wages between rural and urban areas are larger than the differences in hourly wages. Moreover, dependency ratios are lower in urban areas than in rural areas. Per 100 residents of working age, there are roughly 30 fewer residents of non-working age in cities than in rural areas. This implies that a larger percentage of the population in cities is working than in rural areas, which increases average per capita income levels and hence consumption levels for a given wage level.[1]

Figure 1.3. Annual consumption expenditure in cities and rural areas per capita, 2010



Note Based on data for ETH, MLI, MWI, NGA, TZA and UGA from 2010-19.
Source OECD/SWAC calculations based on World Bank LSMS (2008-2019[6]) and OECD/SWAC (2018[2]).

Box 1.2. How are the key indicators in this chapter calculated?

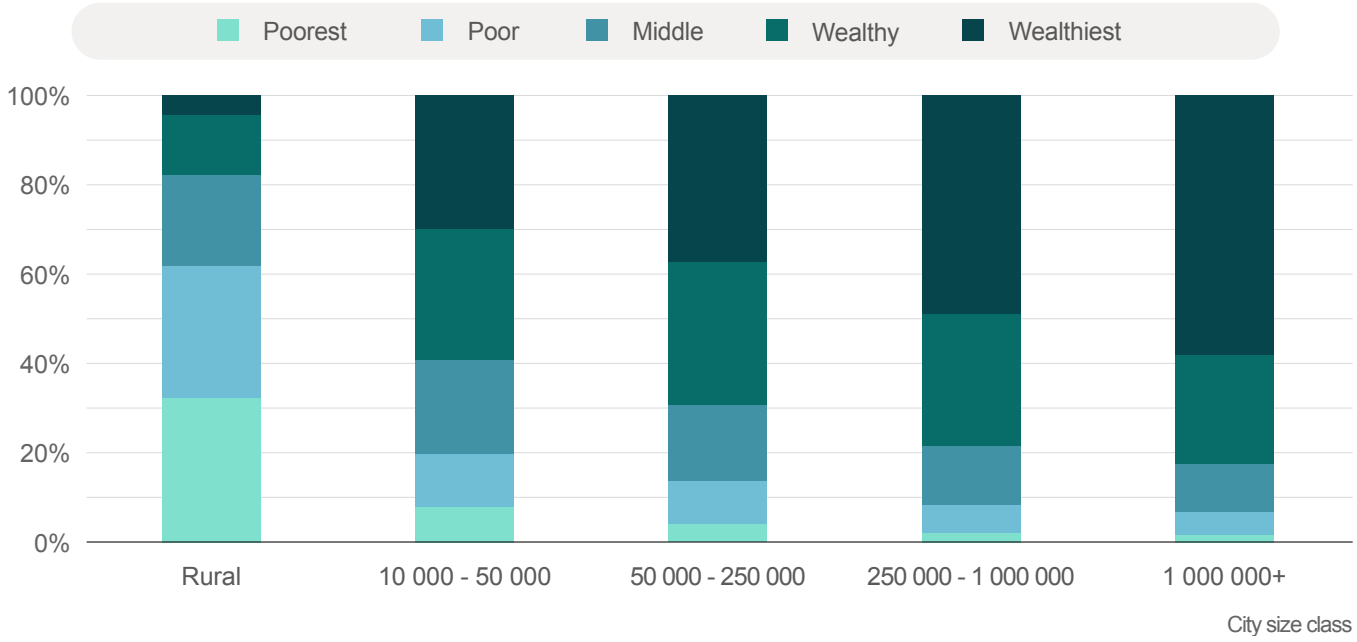
Most indicators in this chapter are derived from DHS and LSMS microdata that are matched to cities defined by Africapolis (see Box 1.1 for a description of the datasets). The following steps have been used to construct indicators:

1. Individuals and/or households in the DHS and LSMS surveys are matched to the build-up areas of cities as defined by Africapolis, based on their location. This step is complicated by the fact that DHS and LSMS do not use homogenous definitions of urban areas and that they include a random offset of 2 or 5 kilometres in the co-ordinates of household locations, to preserve the anonymity of respondents. To work around this issue, a household is assigned to a city if it is defined by DHS or LSMS as an urban household and if a city according to the Africapolis definition is located within the radius of uncertainty. Likewise, households that are defined by DHS or LSMS as rural but that have a probability greater than 50% of being actually located within the built-up area of a city according to Africapolis are allocated to this city.[2] In total, it was possible to match observations from the DHS and LSMS to roughly one-third of the 7 721 cities in the Africapolis database. All remaining households were classified as rural.
2. City-level averages are created by averaging all individuals assigned to the city using the survey weights provided by the DHS and LSMS surveys. This is done separately for each survey wave. Averages for different years are thus created for cities that were covered by multiple survey waves at different points in time.
3. Averages for city-size classes are created by averaging all city-level averages across all available countries within the size class from 2010-2019. Cities are weighted so that each city has the same influence on the city-size class average, no matter by how many surveys it was covered by during the period or how many inhabitants it has. Likewise, averages for rural areas were created by averaging the country average in rural areas for all countries that were covered. The rural area from each country has the same influence on the rural average, no matter how many inhabitants it has.

In contrast to the DHS and LSMS data, firms in Enterprise Surveys are not identified by their location. Instead, the survey data indicates whether a firm is located in a city with between 50 000 to 250 000 inhabitants, between 250 000 and 1 million inhabitants or in a city with more than 1 million inhabitants, often without providing an exact identification of the city. As it is impossible to match firms to individual cities, firms have been averaged by the city-size categories provided by Enterprise Surveys, using the sample weights provided, without further processing.

Striking differences between rural and urban areas can also be seen in the wealth distribution. Whereas only 4% of the rural population belongs to the top wealth quintile of a country on average, the share is 30% in cities with between 10 000 and 50 000 inhabitants and increases to 59% in cities with more than 1 million inhabitants. Conversely, the share of residents in the poorest wealth quintile is 33% in rural areas but just 2% in the largest cities of more than 1 million inhabitants (Figure 1.4).[3] This wealth gap is reflected in the ownership of specific assets. For example, 18% of residents in cities with more than 1 million inhabitants belong to a household that owns a car, while the corresponding figure in rural areas is just 3%.

Figure 1.4. Share of residents in rural and urban areas by wealth quintile



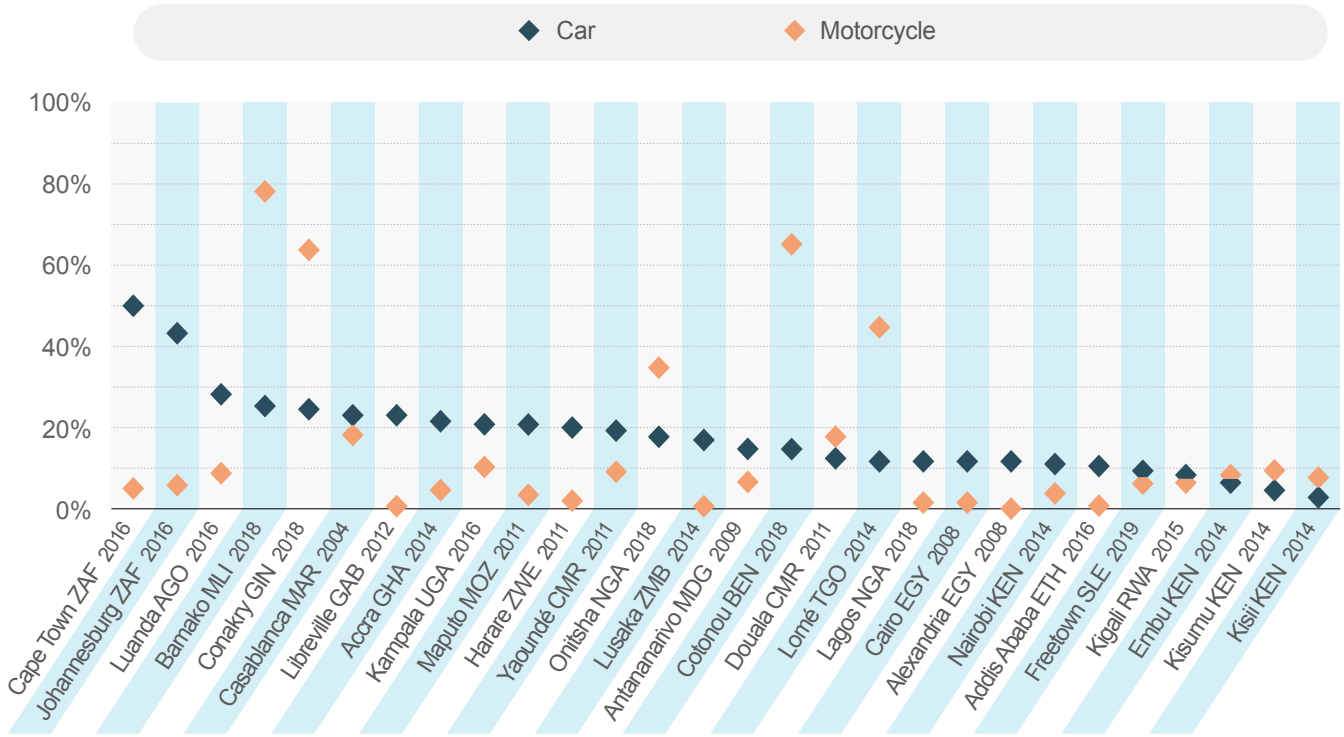
Note Based on data from various years between 2010-19 for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE. Data on wealth quintiles are obtained from the DHS wealth index.

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

As mentioned above, cross-country averages do not reflect the substantial variation between countries. For example, 18% of individuals in large cities live in a household that own a car, but this figure is not representative for many cities. In Cape Town (ZAF), 49% of all households own a car, whereas the corresponding figure is less than 3% in Kisii (KEN) (Figure 1.5).

Figure 1.5. Car and motorcycle ownership rates by cities

Share of urban residents living in households that own a car or a motorcycle



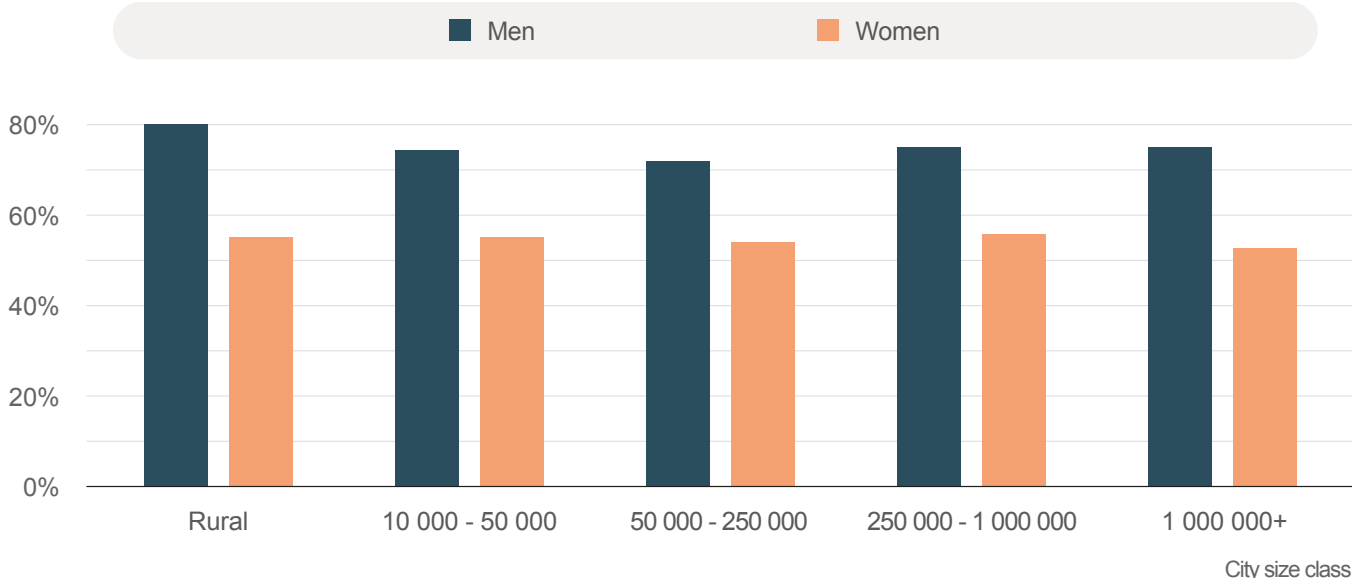
Note The figure shows the number of individuals living in households that own a car/motorcycle. As household sizes differ across countries, this indicator is not representative of the car/motorcycle ownership per capita. See Box 1.3 for details on how cities in the chart were selected.

Source OECD/SWAC calculations based on ICF (1990-2019[11]) and OECD/SWAC (2018[2]).

Urban employment rates are lower than in rural areas, but underemployment is less prevalent

Higher wages in cities do not translate into higher employment rates. Urban employment rates are in fact slightly lower than in rural areas. On average in cities, between 79% and 82% of men (aged 18-49) and 58% to 61% of women (aged 18-49) are in employment. In contrast, 85% of men and 60% of women are employed or self-employed in rural areas (Figure 1.6). Employment rates are generally higher for men than for women, but the differences in cities vary widely across countries. Figure 1.7 shows that North African cities in particular have very low employment rates for women. In other cities, such as Accra (Ghana), Antananarivo (Madagascar) and Lomé (Togo), employment rates for women are nearly as high as for men.

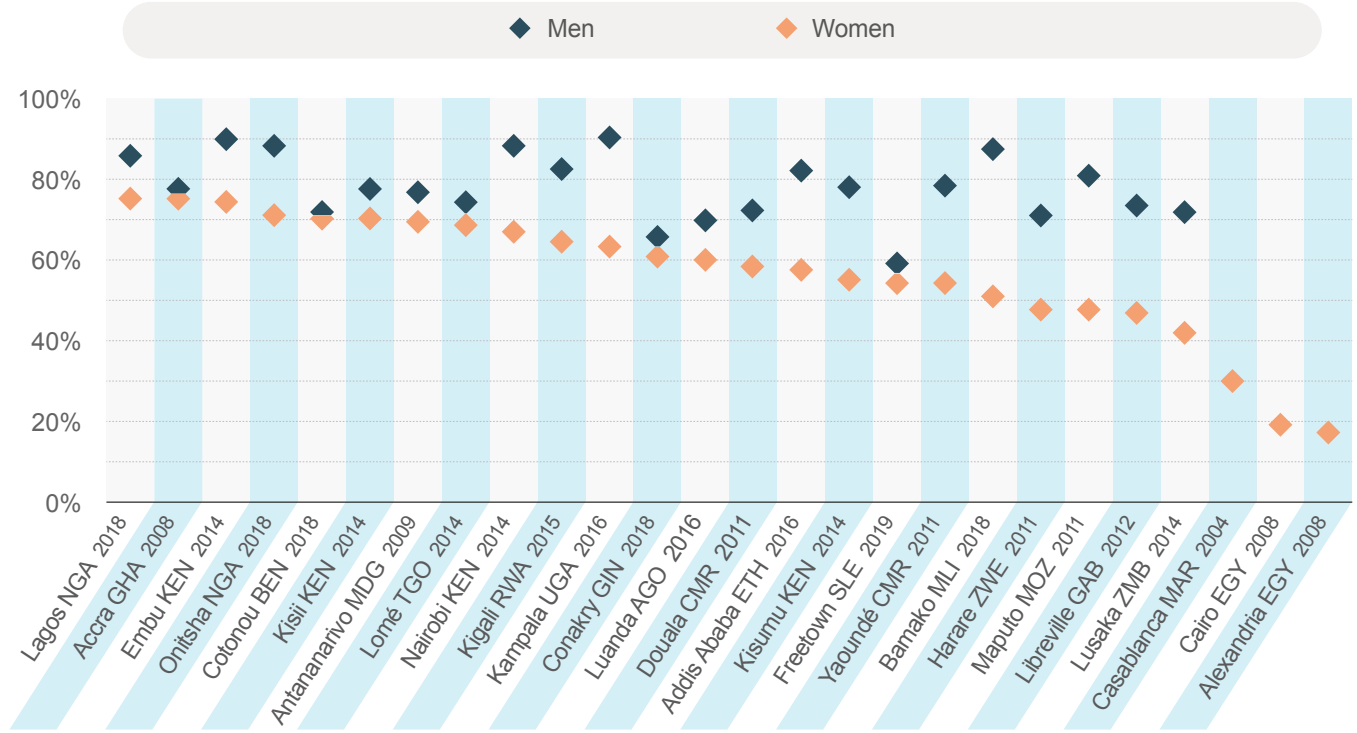
Figure 1.6. Employment rates of individuals aged 18-49



Note Based on data from various years between 2010-19 for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE. Individuals aged 18-49.

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

Figure 1.7. Employment rate by gender in selected cities



Note Individuals aged 18-49.

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

Box 1.3. Why are indicators shown only for a few cities?

The procedure described in Box 1.2 makes it possible to match observations from the DHS and LSMS databases to approximately 2 600 cities across Africa. However, in most instances, the number of observations is not sufficient to provide reliable statistics for an individual city, because the DHS and LSMS data was not expressly collected to be analysed at a high degree of geographical disaggregation. Both surveys use cluster sampling, which does not select respondents randomly from all locations. Instead, the sampling locations (so-called sampling clusters) are randomly selected, and all 20 to 30 households at the location are surveyed. As a result, a typical city includes data from 150 individuals (many of them children) from 30 different households in a narrowly defined neighbourhood in the city.

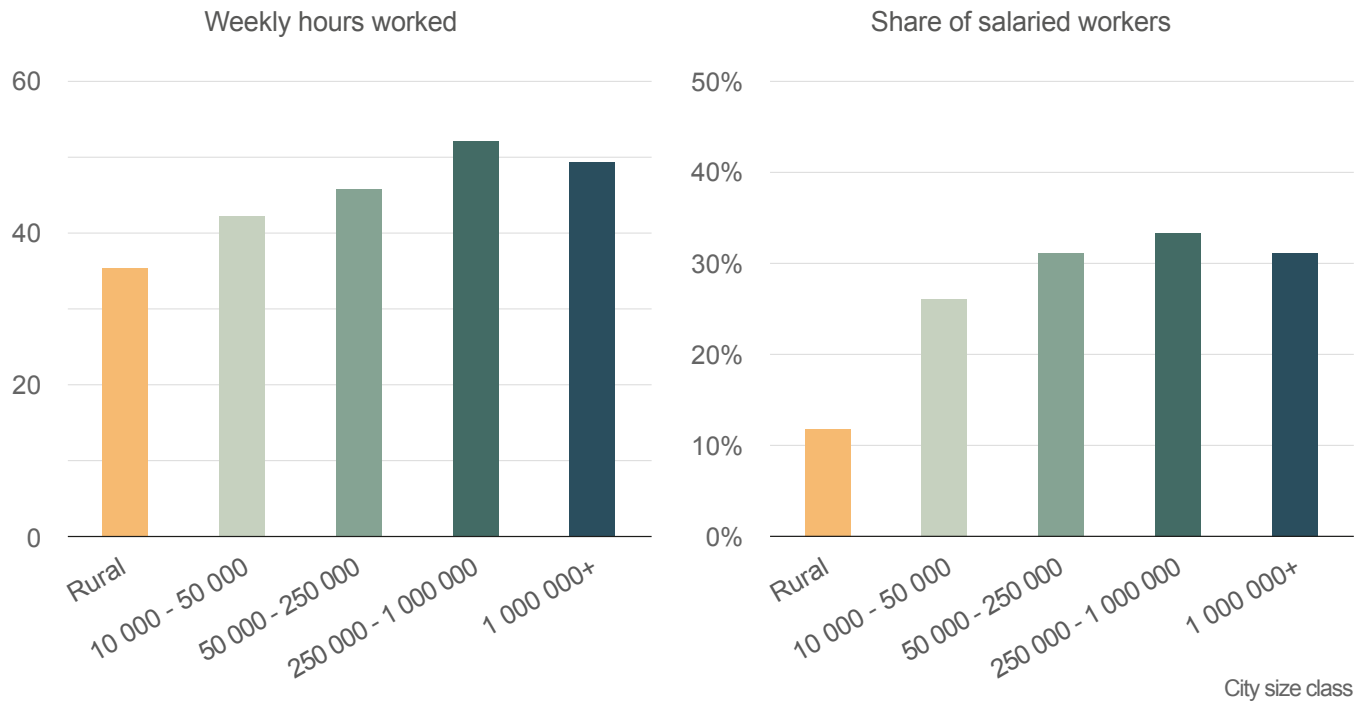
Thus, even if the data contains information on several hundreds of individuals in a city, this may not be sufficient to create reliable averages for the city, because individuals have been sampled from only a few locations within the city. As a consequence, the data for many cities is not representative, because in many instances, mostly poor or mostly rich neighbourhoods happen to have been surveyed. Only if the number of sampling locations is high is it likely that the locations are representative of the city as a whole. To avoid providing a misleading picture, data for individual cities is reported only if at least 500 individuals from 250 households sampled from at least 50 different locations in the city were surveyed. In those cities, it is much less likely for the results to be dependent on the location of the sampling clusters. However, city-level data for all cities will be made available to interested researchers and analysts. To request access to the data, contact africapolis@oecd.org.

Importantly, the sampling error for individual cities is much less of a concern if the data is averaged by city-size class. In this case, the sampling error for individual cities averages out, and the resulting indicators for city-size classes have a much higher accuracy than the indicators for individual cities.

High rural employment rates are counterbalanced by the low number of hours worked

While employment rates in cities are slightly lower than in rural areas, this is more than outweighed by the difference in the number of hours worked. On average, employed rural residents work 36 hours a week, compared to up to 49 hours in cities with more than 1 million inhabitants – a difference of 39%. The high employment rate in rural areas masks significant underemployment, i.e. workers working fewer hours than they could if they had a choice, largely due to the seasonality of agricultural labour. Moreover, the share of salaried workers is significantly higher in larger cities.

Figure 1.8. Urban residents work more hours and are more likely to be salaried



Note Average based on data for ETH, MLI, MWI, NGA, TZA and UGA from 2010-19.

Source OECD/SWAC calculations based on World Bank LSMS (2008-2019[6]) and OECD/SWAC (2018[2]).

Box 1.4. The economic impact of COVID-19 on African cities

The COVID-19 pandemic has inflicted a major toll on Africa. Quite apart from the public health impact, which has still not been clearly measured, it has had major economic consequences. Employees in the informal sector, for example, lost 7.7% of their incomes on average due to lockdowns, mostly without receiving any support from social protection programmes (ILO, 2021[8]). The number of Africans threatened by food insecurity has also risen by 60%, to more than 100 million (World Bank, 2021[9]).

The economic downturn has had dramatic consequences for public finances. The pandemic is predicted to reduce Africa's public revenues by 5%, and city-level governments could lose up to 60% of their revenues in 2021 (UN-Habitat, UNECA, UNCDF and UCLGA, 2020[10]). This decline is especially dramatic in light of the already weak fiscal capacity of local governments prior to the outbreak of pandemic (see Chapters 4 and 5).

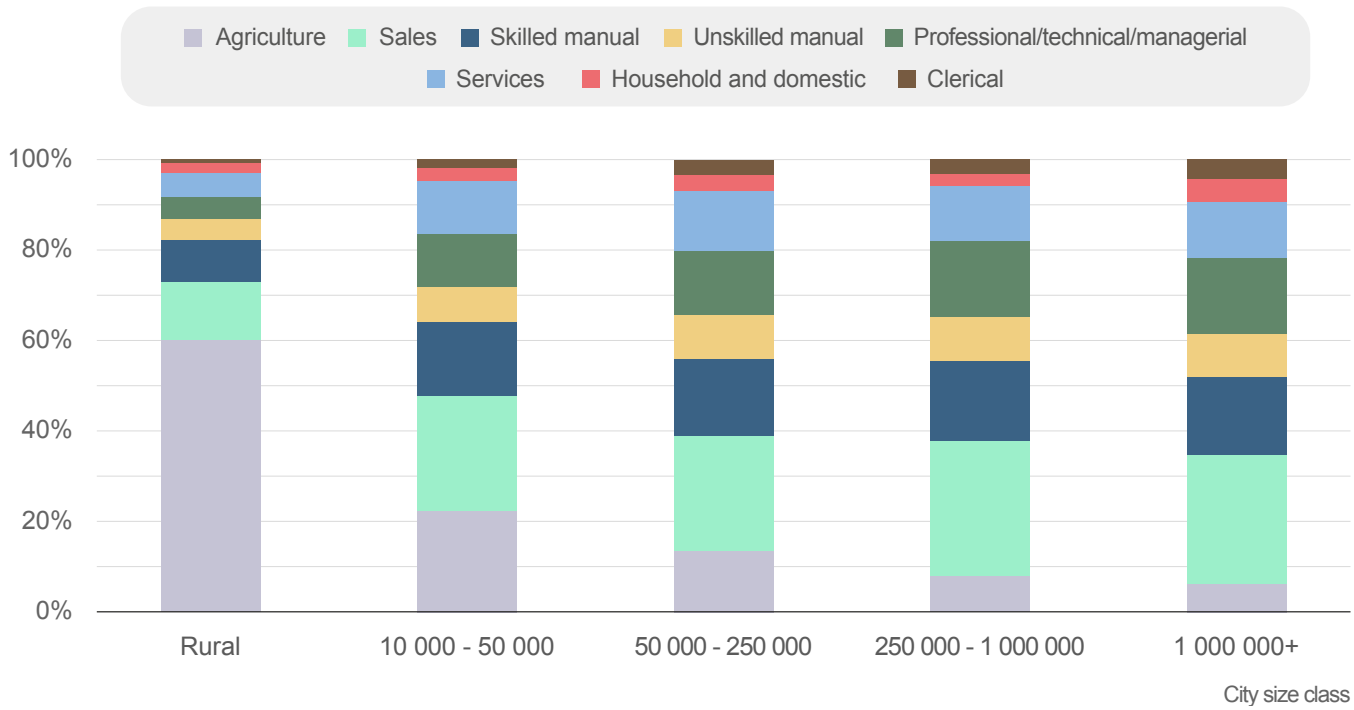
As of the time of writing of this report, the pandemic was ongoing and its consequences were not yet fully understood. While it is possible that its economic impact will only be transitory, long-term effects on urban economies, due either to a lasting economic crisis or to changes in urbanisation patterns, cannot be ruled out. For this report, data from up to 2019 have been available. The statistics presented thus do not show the impact of the COVID-19 pandemic.

The share of workers in skilled occupations is higher in cities

Across the world, urban areas have more complex economies than rural areas. Cities in emerging economies are often centres of industrial activity, while cities in advanced economies tend to rely on services. In contrast, rural areas have a much stronger reliance on agriculture and extractive activity and often have lower shares of skilled and service sector jobs. Nevertheless, especially in high-income countries, agriculture tends to employ only a small fraction of individuals, even in rural areas. In the average OECD country, only 7% of all workers in rural areas are employed in agriculture (OECD, 2021[11]).

In Africa, agriculture is the dominant occupation in rural areas, at close to 60% of all workers employed. Urbanised countries tend to have somewhat lower rates of agricultural employment. In contrast, sales, skilled manual work, services, and professional, technical and managerial activities are the dominant occupations in cities of all sizes. Together, they make up approximately half of all jobs in urban areas (Figure 1.9). Even in small cities of less than 50 000 inhabitants, only 16% of the workforce are directly employed in agriculture. Of course, this figure does not take into account the indirect importance of agriculture, as a sizeable part of the workforce in these cities is employed in sectors that depend on agriculture, such as the trade or processing of agricultural goods.

Figure 1.9. Composition of the rural and urban economy by sector



Note Workers employed by economic sector. Based on DHS surveys from various years between 2010-19 for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE.

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

The occupational categories provided by the DHS can be classified in skilled and unskilled occupations. While such a classification is only approximate, given the lack of detail within the available occupational categories, it shows a very clear pattern. The share of skilled occupations is significantly lower in rural areas than in cities. Among men, less than 20% of working individuals work in skilled occupations in rural areas, compared to approximately 50% in midsized and large cities. The share of women in skilled occupations is generally lower, but the pattern is the same: 11% of women are employed in skilled occupations in rural areas, while the share in cities of different sizes ranges from 20% to 25%. Thus, for both genders, the share of skilled workers in large cities is approximately 2.5 times that in rural areas.

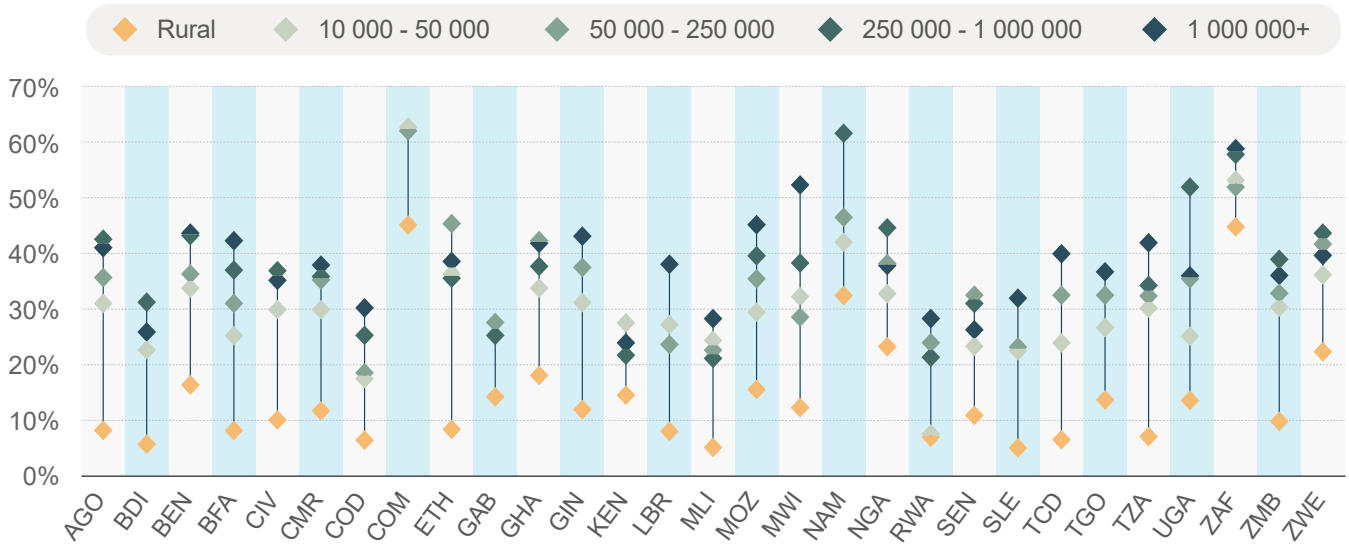
Figure 1.10. Share of workers in skilled and unskilled occupations

Note Based on DHS surveys from various years between 2010-19 for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE. Occupational categories provided by DHS have been classified into skilled/unskilled as follows. Skilled occupations are defined as professional, technical, managerial, clerical and skilled manual work. Unskilled occupations are defined as sales, agriculture, household and domestic work, services, and unskilled manual work.

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

Figure 1.11 shows the relationship between the share of skilled jobs and the urban/rural status by country. While country-level estimates necessarily have a higher sampling noise and are therefore less precise than aggregate numbers, it is notable that the pattern described above holds in most countries.

Figure 1.11. Share of workers in skilled occupations by country and city-size class



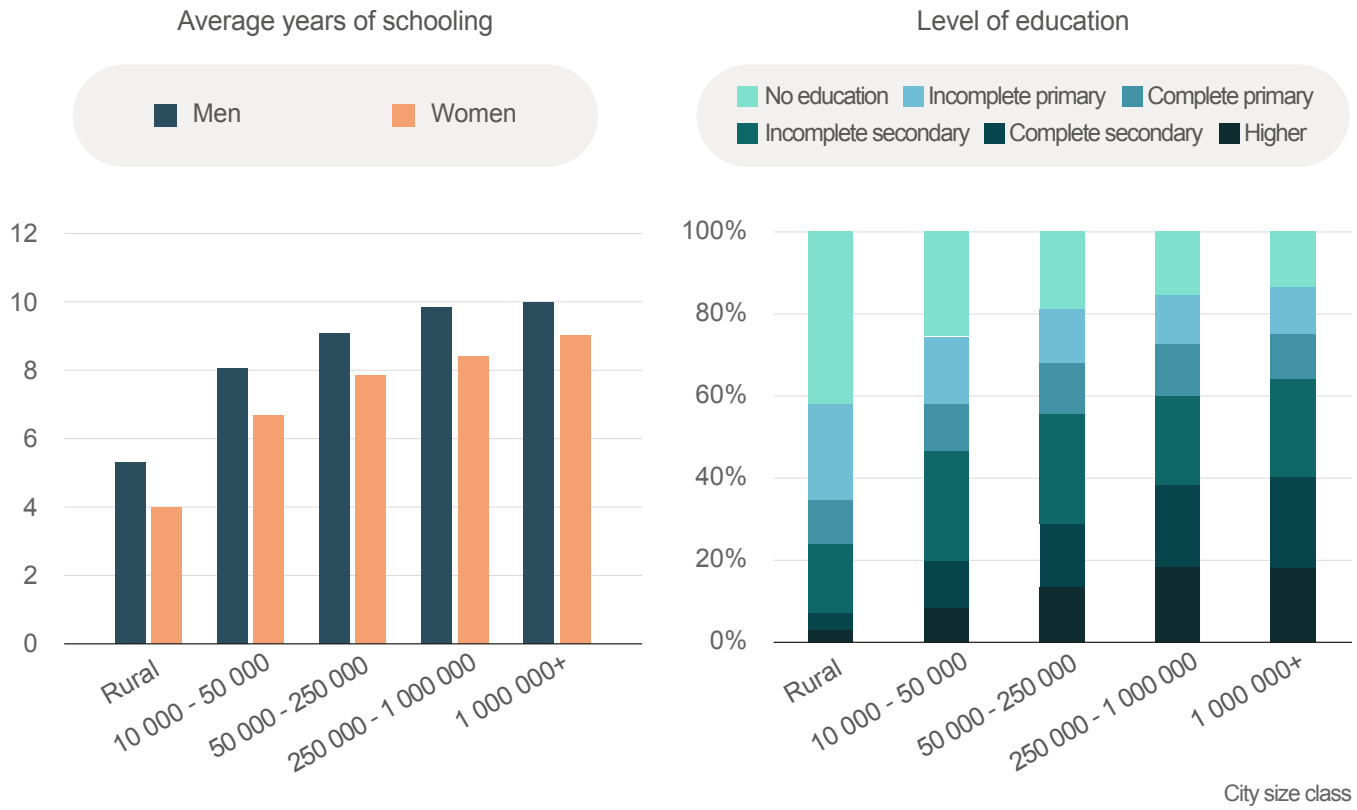
Note Data for various years from 2010-19. Occupational categories provided by DHS have been classified into skilled/unskilled. Skilled occupations are defined as professional, technical, managerial, clerical and skilled manual work. Unskilled occupations are defined as sales, agriculture, household and domestic services, and unskilled manual work.

Source OECD/SWAC calculations based on ICF (1990-2019[11]) and OECD/SWAC (2018[12]).

Education levels in cities are higher than in rural areas

The higher share of skilled jobs in cities can – at least partly – be explained by the higher education levels. Whereas on average 42% of the population in rural areas in the covered countries does not have any formal education, the share is only 13% in large cities. Likewise, the number of average years of schooling varies from 4 years for women in rural areas to almost 10 years for men in large cities. Notably, the gender gap is somewhat smaller in large cities, indicating that urbanisation has benefits for female education. Importantly, these numbers refer to the entire population above age 18 and older and not to current graduates. As noted below, education levels in Africa are rising across rural and urban areas alike. Average education levels in the general population are thus lower than average education levels of young adults.

Figure 1.12. Education levels in rural areas and cities



Note Based on DHS surveys from various years between 2010-19 for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE. Respondents aged 18 and older.

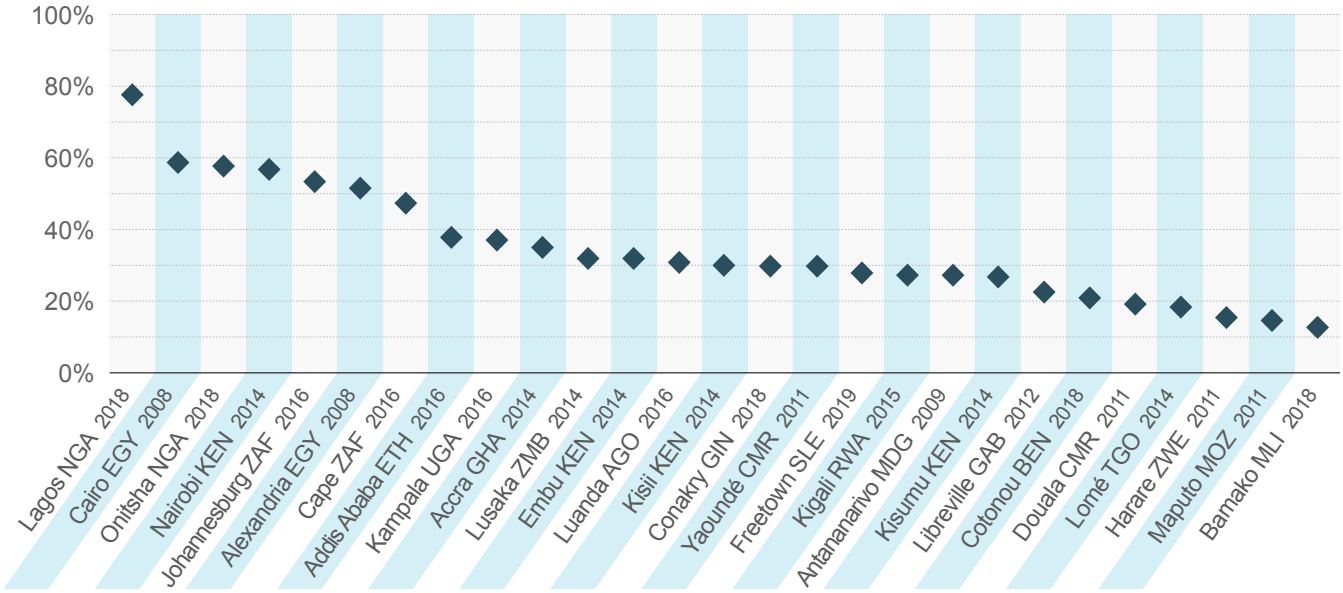
Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

Cities attract educated people everywhere in the world. Thus, the difference in education levels could be due to the fact that more educated people tend to move to cities. However, the data do not support this hypothesis. Although rural-urban migrants aged 18-29 who move to cities at age 18 or older have on average 3 to 3.5 years more education than their rural peers of the same age who have never moved, they still tend to be less educated than urban residents aged 18-29 who grew up in a city. For all city-size classes, the education level of residents born there who have never moved is higher than the education level of rural-born residents who moved there at age 18 or older. The large gaps in education levels between cities and rural areas are thus not primarily due to selective migration, but to the easier access to education in cities and the greater importance of education in an urban economy.

The boost to education that urbanisation affords is arguably one of its most important benefits. Education has major positive influences on job opportunities, health outcomes and other dimensions of well-being over the course of a person's lifetime (OECD, 2021[12]), meaning that the economic and social benefits will persist over many decades. This also implies that many of the economic benefits of the higher levels of education that children in African cities receive today will materialise only in the years to come.

Despite the benefits cities offer in providing access to education, it is important to emphasise that some cities do better than others. Figure 1.13 shows that large differences in education levels exist across cities of different sizes. Some cities are much more successful in providing secondary education to their residents and have shares of the population with secondary education that easily exceed 50%, while the share remains below 20% in other cities. As similarly diverse sets of outcomes can be found across many dimensions, it is a reminder that public policies matter and that the benefits of urbanisation do not materialise automatically.

Figure 1.13. Share of residents with secondary or higher education



Note Respondents aged 18 and older.

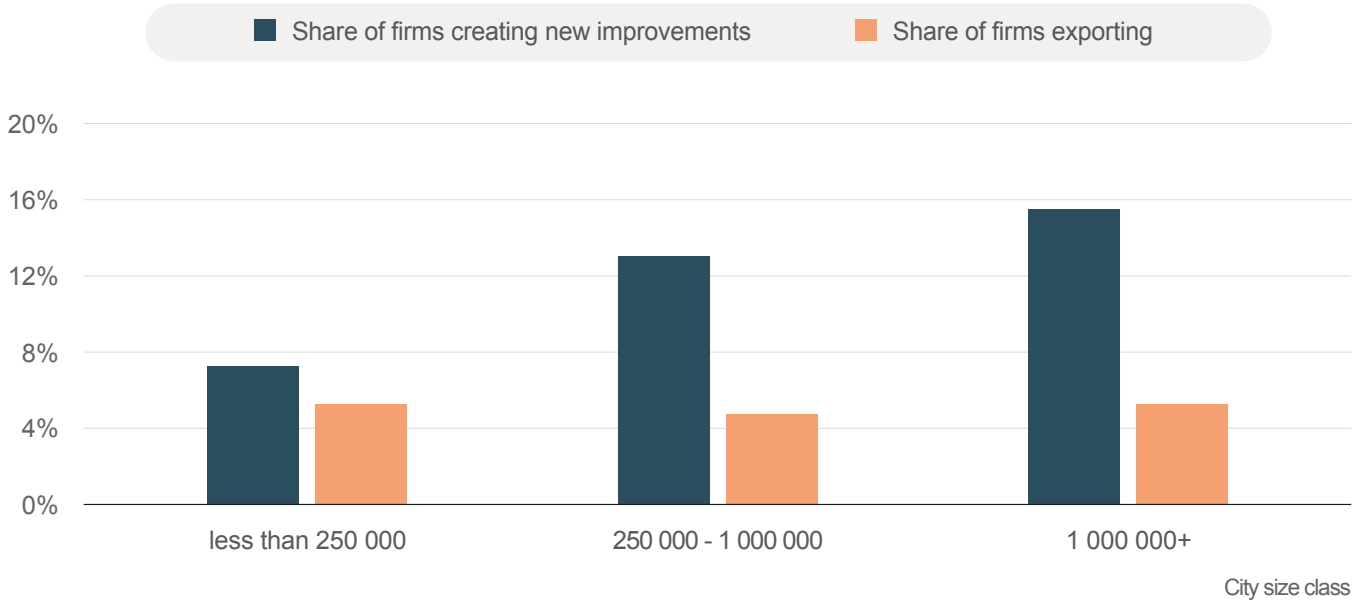
Source OECD/SWAC calculations based on ICF (1990-2019[11]) and OECD/SWAC (2018[12])

Firms in cities are more innovative

Firms in larger cities are more likely to be engaged in innovative activities, such as creating new products or improvements (Figure 1.14). In small to medium-sized cities with fewer than 250 000 inhabitants, approximately 8% of firms develop new improvements to products, whereas the share is twice as high in cities with more than 1 million inhabitants. As innovation is the key driver of productivity growth, the increased innovative activity contributes to higher levels of productivity in larger cities.

Even though international evidence suggest that innovative firms export more (Bustos, 2011[13]) and that larger cities rely disproportionally on exports (Marin et al., 2020[14]), this pattern is not reflected in city-level data in Africa (Figure 1.14). Potentially, this is due to the outsized importance that the export of raw materials has in the export portfolio of African economies. As the producers of raw materials are likely to be located in rural areas and smaller cities, they counteract the export-enhancing effect of greater innovative activity in large cities.

Figure 1.14. Innovation and export activity of firms by city size



Source OECD/SWAC calculations based on World Bank (2010-2019[7]) and OECD/SWAC (2018[2]).

Moreover, compared to cities with less than 250 000 inhabitants, firms in cities with between 250 000 and 1 million inhabitants have a share of employees with secondary education 7 percentage points higher and firms in cities of above 1 million inhabitants have a share 11 percentage points higher. This corresponds to the result noted earlier that the share of skilled jobs is higher in larger cities than in smaller ones.

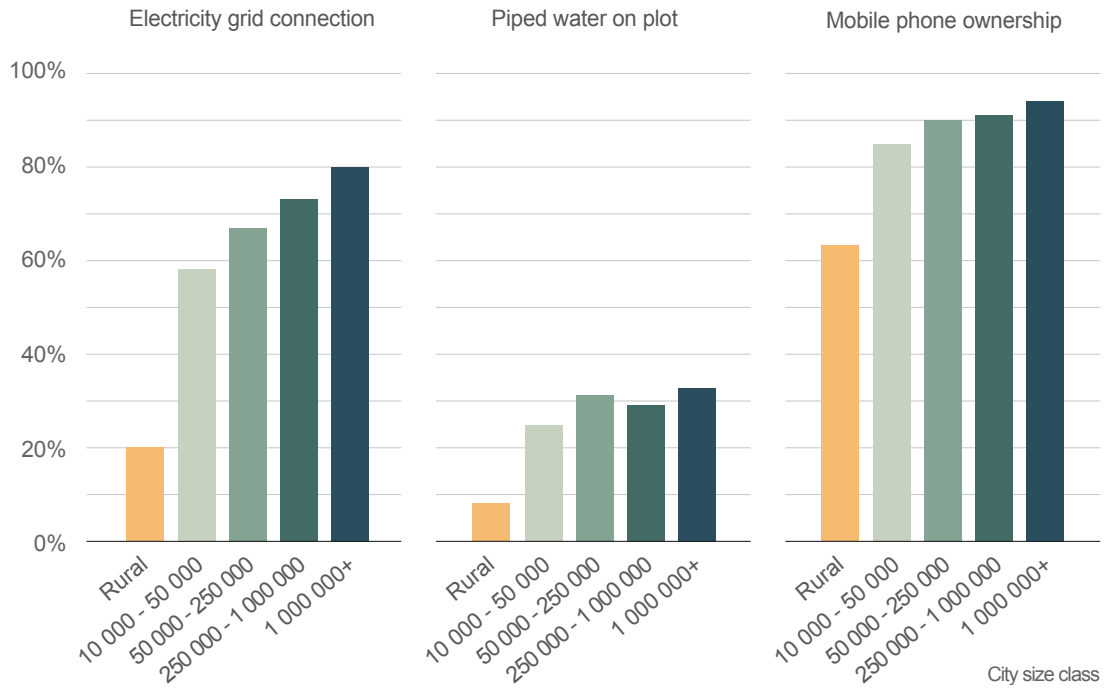
Infrastructure provision is more efficient in cities

Cities across the globe have higher levels of infrastructure than rural areas because infrastructure can be provided more efficiently to urban residents than to rural residents. Because of higher population densities, more people can benefit from a given infrastructure investment in a city than in a rural area. This makes it cheaper to provide infrastructure to city dwellers than to rural populations. Likewise, the provision of other essential infrastructure, such as transport and telecommunications infrastructure, is cheaper on a per capita basis in cities than in rural areas. High densities of people and firms in cities also allows the provision of infrastructure that would not be viable in rural areas, such as metro systems, airports and various forms of specialised industrial infrastructure, such as high-throughput data cables. Workers and firms become more productive because they benefit from this infrastructure.

In Africa, infrastructure levels between cities and rural areas differ substantially, which is reflected in the share of households that have access to electricity, piped water and telecommunications networks. The differences are most pronounced with respect to electricity provision. Less than 20% of households in rural areas have access to electricity, while the share reaches 58% in small cities with less than 50 000 inhabitants and 80% in cities with more than 1 million inhabitants. Access to piped water on the plot is generally much less widespread and varies from 7% in rural areas to 25% in small cities and 33% in large cities.[4] In contrast, mobile phone coverage and ownership is widespread, with 63% of households owning a mobile phone in rural areas, 85% in small cities and 94% in large cities.

Notably, the gap between rural areas and cities (of any size) is much larger than the gap between small and large cities. The differences between rural areas and small cities in the share of households that have access to electricity, water and mobile phones, respectively, are approximately twice as large as the differences between small cities and large cities. This pattern holds for many other outcomes analysed in this chapter.

Figure 1.15. Access to public utilities



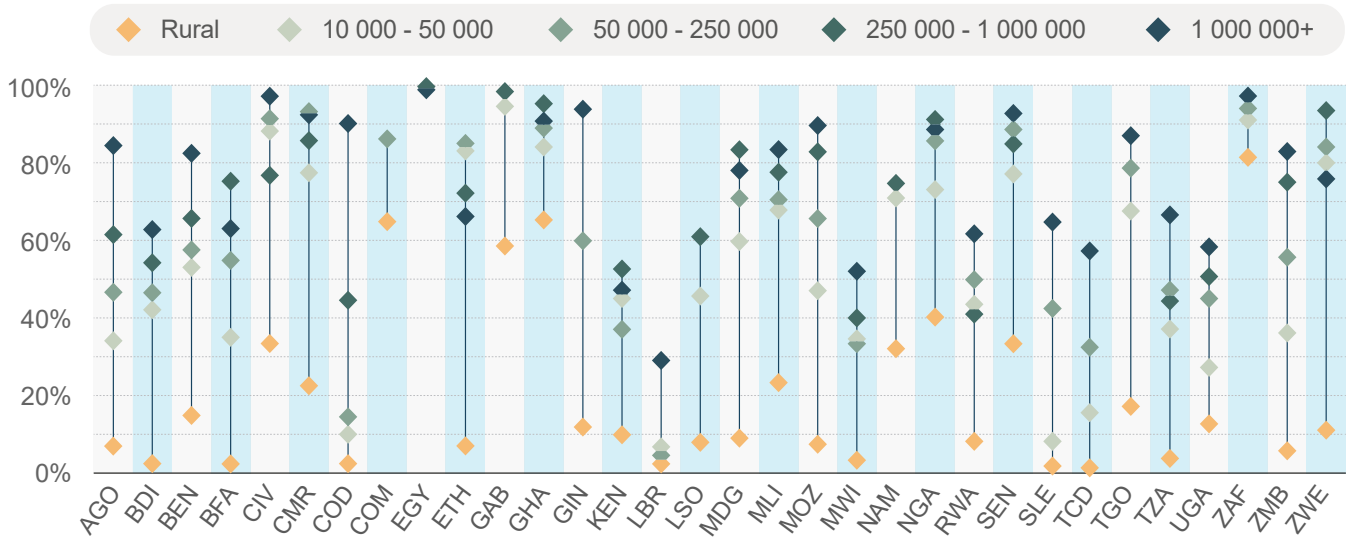
Note Based on DHS surveys from various years between 2010-19 for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE.

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

It is important to keep in mind that Figure 1.15 shows the general differences across rural areas and cities of different sizes, but it is not representative of individual countries. A breakdown of access to electricity by city-size class and country (Figure 1.16) shows that majorities of households in large and midsized cities have access to electricity. In contrast, electrification rates in small cities vary strongly across countries, while rural electrification rates are below 50% in most countries.

Access to piped water on the plot varies even more strongly across countries. Figure 1.17 shows the share of population with access to electricity and water for selected cities. Whereas electricity access is widespread in almost all large cities, access to piped water on the plot varies strongly across cities. While more than 80% of residents in Addis Ababa (Ethiopia) have piped water access on their plot, the share is just slightly above 10% in Accra (Ghana). Similar differences can be found across cities of all sizes.

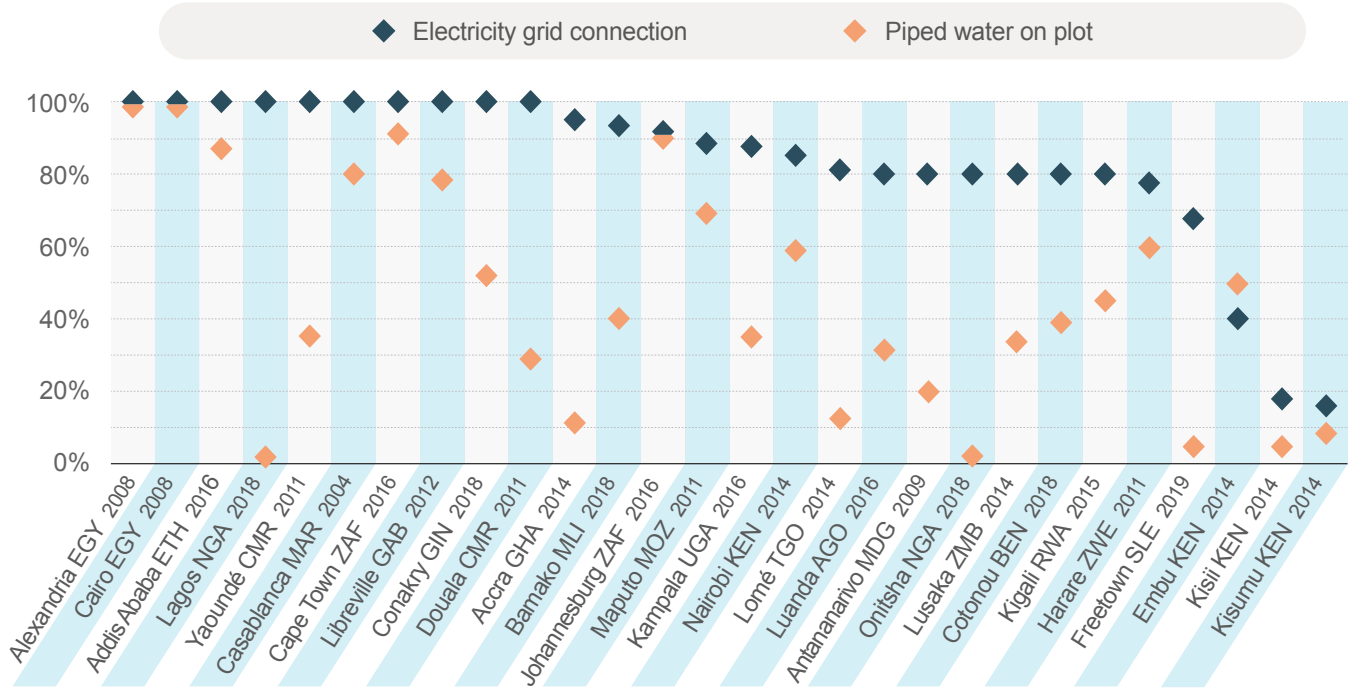
Figure 1.16. Share of households with access to electricity by country and city size



Note Data for various years between 2010 and 2019 and Egypt 2008.

Source OECD/SWAC calculations based on ICF (1990-2019[11]) and OECD/SWAC (2018[2])

Figure 1.17. Share of residents with electricity and private piped water access in selected cities



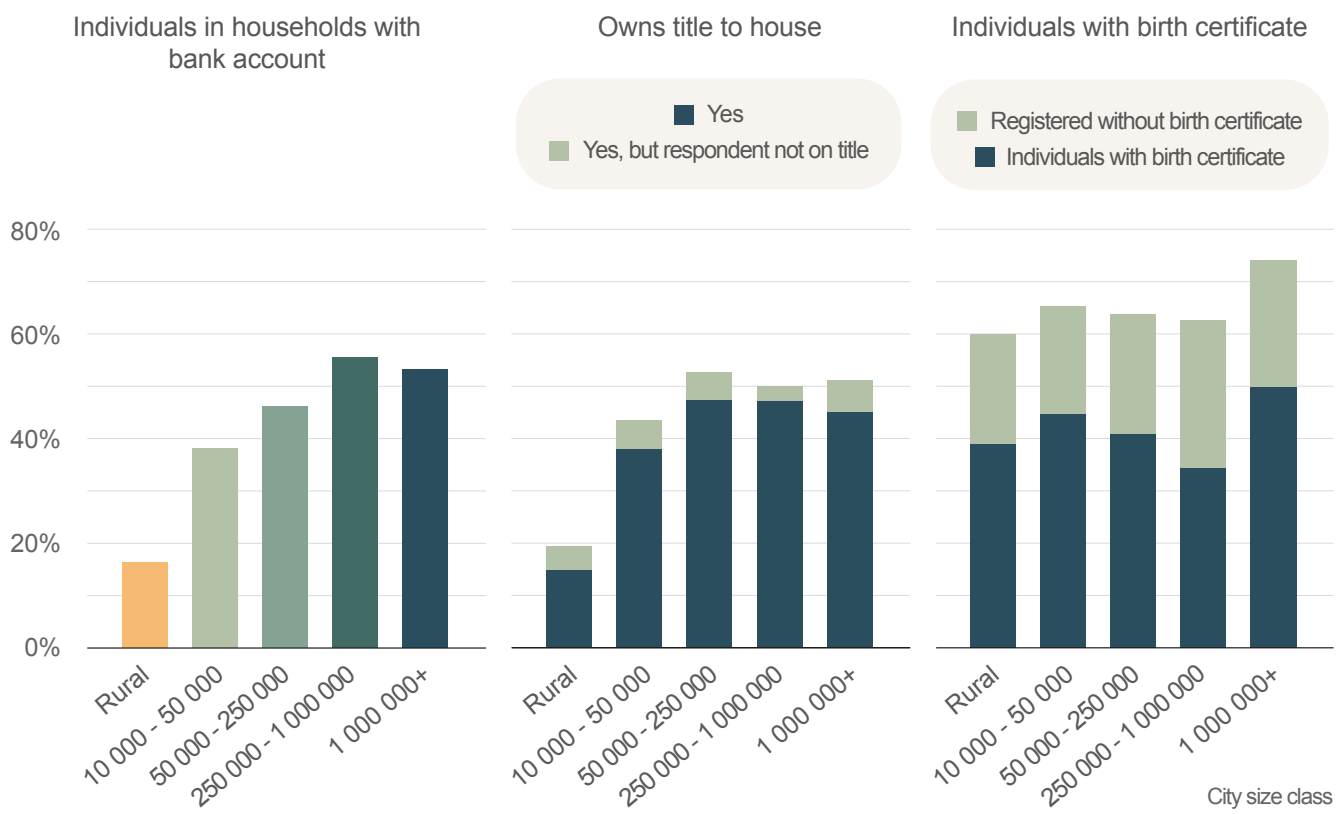
Note Lagos stands out as one of Africa's largest cities that also has one of the lowest rates of access to piped water, since 33% of households obtain their water from private boreholes, and 57% from water sachets (i.e. water packaged into small plastic bags). See Danert and Healy (2021[15]) and National Population Commission and ICF (2019[16]) for further details.

Source OECD/SWAC calculations based on ICF (1990-2019[11]) and OECD/SWAC (2018[2]).

Pillars of the formal economy are more developed in cities

The available data do not allow for measuring the scale of the formal and informal economy in rural and urban areas. However, urban areas are more likely to meet many of the preconditions to facilitate a transition to the formal economy. The share of individuals that own a bank account is 2 to 3 times higher in cities of different sizes than in rural areas. Likewise, close to half of all individuals own a title to their house in urban areas, while the share is less than 20% in rural areas. Urban residents are also more likely to have a birth certificate or to be registered with the public administration, even if the gap is small compared to the previous outcomes. While none of these factors alone is sufficient to enable a transition to the formal economy, the absence of any of them can create a bottleneck that prevents such a transition.

Figure 1.18. Share of residents in households with bank accounts, titles to a house and birth certificates

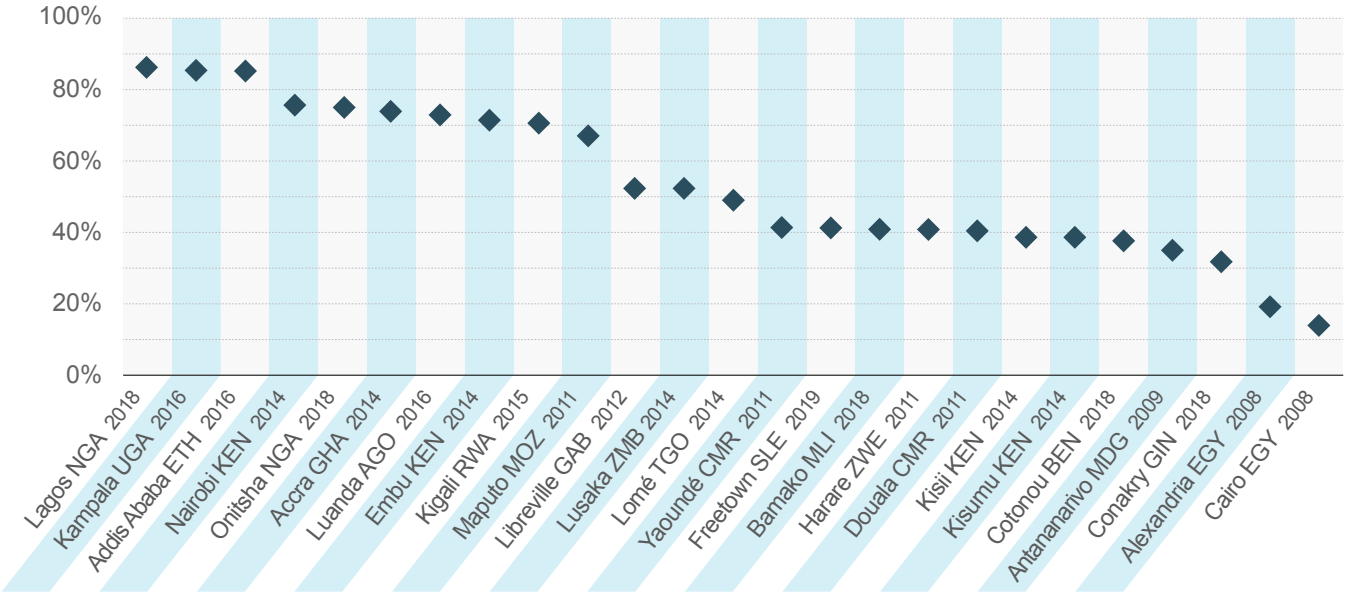


Note Based on DHS surveys from various years between 2010-19 for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE.

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

Mobile banking has made banking services available to large groups of people who did not previously have access to financial institutions. Figure 1.18 presents an average for the years 2010-2019, the share of residents in households with a bank account is probably an underestimation of today's value. As Figure 1.19 shows, more than 80% of residents live in households that have a bank account in 2016 and 2018 in major African cities such as Lagos (NGA), Kampala (UGA) and Addis Ababa (ETH). Nevertheless, there are still large cities, such as Conakry (GIN), where less than a third of residents live in a household that has a bank account.

Figure 1.19. Share of residents that live in households with a bank account



Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

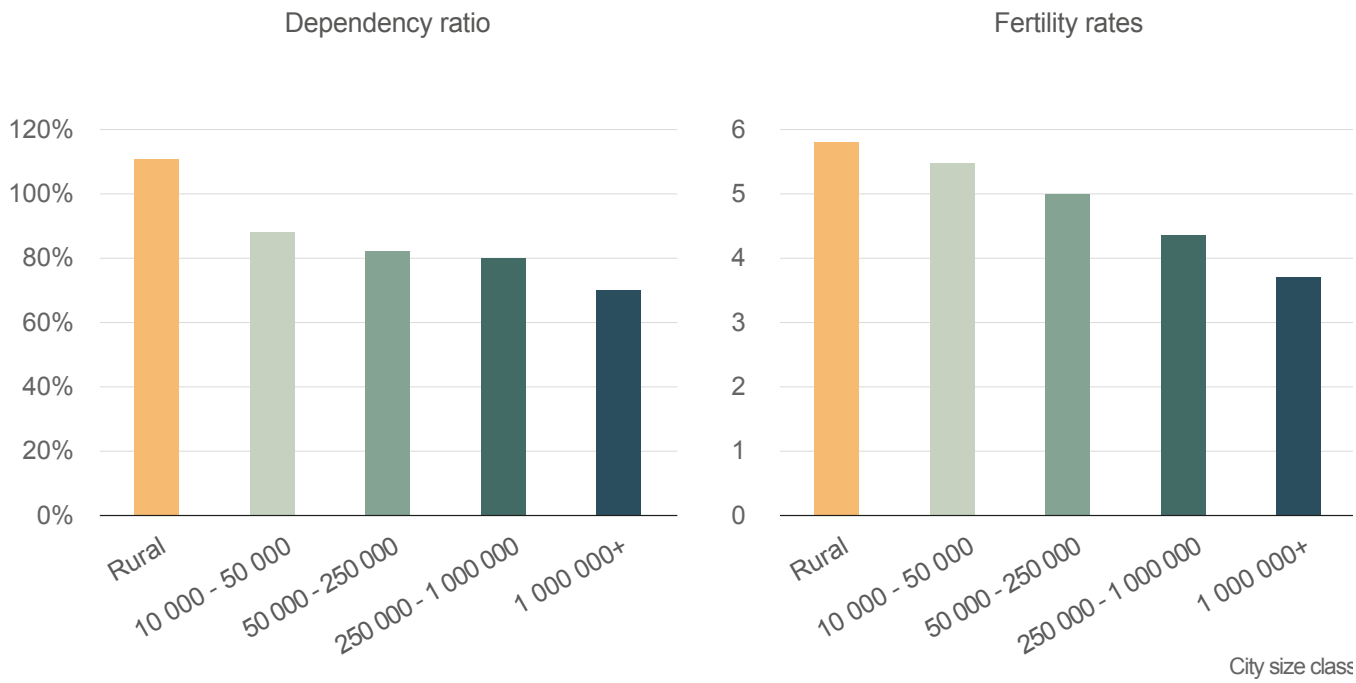
Dependency ratios and fertility rates are lower in cities

Africa has by far the highest dependency ratio of any global region. In 2015, on average, 100 working age people (aged 15-64) had to support 80 non-working age people. In contrast, dependency ratios in other global regions vary from 47 to 55 non-working age people per 100 working age people (UNDESA, 2019[17]). The high dependency ratio is mostly due to a high birth rate. More than 90% of the dependent population in Africa are children, whereas up to half of the dependent population in other parts of the world consists of the elderly.

Lower dependency ratios increase per capita GDP levels and improve living standards because the output produced by the working population has to be shared among a smaller non-working population. Assuming a constant employment rate and constant labour productivity, a decrease in the dependency ratio from 80 to the global average of approximately 50, would increase per capita GDP by 20%. Dependency ratios could decrease further, because high child dependency ratios carry the seeds of a demographic dividend. If fertility rates decline to replacement levels (approximately 2.1 births per woman), countries can quickly move from disproportionally high dependency ratios to disproportionally low dependency ratios, because the decline in fertility is quickly reflected in lower child dependency ratios, while it takes decades until it is reflected in higher old-age dependency ratios.

In the 32 countries for which data exists, total fertility rates in large cities averaged 3.7 births per women between 2010 and 2019, as opposed to 5.9 in rural areas (Figure 1.20 left panel). Across all of Africa, total fertility rates have declined from 6.2 in 1990 to 4.4 in 2020 (UNDESA, 2019[17]). This downward trend occurred relatively uniformly across rural areas and cities of any sizes, and the gap between rural areas and cities remained relatively constant over time. While the fertility rate is the most important determinant of dependency ratios, they are also affected by rural-urban migration. The large gap in dependency ratios between rural areas and small cities with between 10 000 and 50 000 inhabitants (Figure 1.20 left panel) that is not reflected in fertility rates could be an indication that rural-urban migrants into these cities do not take their children with them (perhaps because they are located close to their rural homes). However, further investigations would be necessary to confirm this hypothesis.

Figure 1.20. Dependency ratio and fertility rates in rural and urban areas



Note Based on DHS surveys from various years between 2010-19 for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE. Diverging from the description in Box 1.2, the data were constructed by averaging all observations belonging to a city-size class within a DHS survey without first averaging by city.

Source OECD/SWAC calculations based on ICF (1990-2019[11]) and OECD/SWAC (2018[12]).

Small and midsized cities perform well

One of the most notable patterns in the data presented above is the good performance of small and midsized cities. Even small cities perform notably better than rural areas along almost all measurable outcomes. While they tend to perform worse than larger cities, the gap between small and large cities is usually much smaller than the gap between rural areas and small cities.

These results indicate that in many cases, certain minimum sizes or minimum population densities are required for an economic activity, a public service or an infrastructure provision. Once the required threshold is exceeded, any additional population does little to facilitate the economic activity or service or infrastructure provision further. For example, almost any city of 10 000 inhabitants will have enough students to allow for the efficient operation of a secondary school. While larger cities might allow for more specialised secondary schools or a larger choice of secondary schools, these gains tend to be small relative to the benefit that comes from exceeding the necessary population size that allows for the operation of a secondary school. Similar threshold effects might occur with respect to many other outcomes, such as the viability to have a specialised market or a bank branch in a city.

Of course, not all benefits of urbanisation occur at certain thresholds. Some benefits of urbanisation continue to accumulate with increasing city sizes and population densities. For example, larger cities tend to have more complex economies because they allow for more specialised economic activities. This complexity increases with city size, without depending on any obvious thresholds.

Averages hide substantial variation across and within cities

This chapter presents primarily averages by city-size class to show the typical patterns that can be found across Africa. Although such averages are meaningful

and important, they only present a partial picture because they cannot reflect the substantial variation that exists across and within cities. As discussed above, large differences exist between cities, with many cities performing well in some dimensions, but not in others. Within cities, differences between poor and wealthy residents are even larger than average differences across cities. Due to the lack of suitable data, this report does not discuss the gap between the formal and informal sector. The statistics presented generally cover both sectors, even though economic and social conditions tend to be much more favourable in the formal than in the informal sector. Likewise, the place of residence within a city has major consequences on living standards. Slum dwellers often have much poorer access to services and infrastructure than individuals living in formal housing. Again, these differences have not been discussed in detail, given the lack of cross-country data that would permit a rigorous quantitative analysis.

Estimating GDP gains from urbanisation

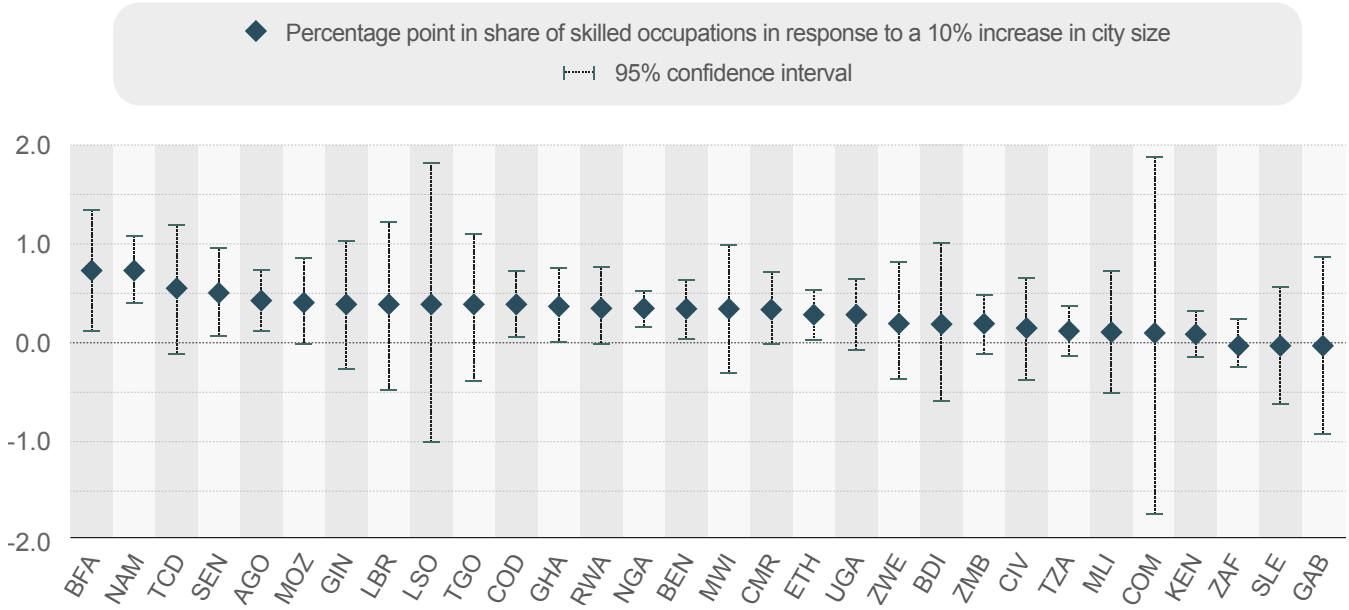
Most cities generate significant agglomeration economies (OECD, 2015[18]). The term *agglomeration economies* describes a set of factors that increase productivity, wages and innovation when economic activity is located in close geographical proximity (Box 1.5). Cities, and especially large cities, are the main beneficiaries of agglomeration economies, because of the high density of their economic activity.

Africa's cities have higher productivity levels than rural areas, and larger cities have higher productivity levels than smaller cities. This is reflected in higher wages (Figure 1.2) and higher GDP levels. While this pattern suggests that urbanisation contributes to better economic outcomes, it is not conclusive evidence. A possible alternative explanation could be that cities and especially large cities attract particularly productive workers or industries and advanced industries, a process that economists call sorting. If sorting were the only explanation for the good performance of cities, urbanisation would not benefit national economies, as the productive workers and industries that locate in cities would be equally productive if they remained in rural areas. Under this explanation, urbanisation would only affect where productive firms and workers are located, but it would not add to overall productivity levels across the national economy.

Sorting of workers and firms is common in most countries, including in Africa. As noted above, rural-urban migrants have on average 3 to 3.5 years more of education than rural residents of comparable age who do not move to cities. On average, an increase in city size by 10% is correlated with a 0.3 percentage point higher share of workers in skilled occupations. Figure 1.21 breaks down the relationship between city size and share of skilled job by country. For each country, it shows the estimated increase in the share of skilled jobs in response to a 10% increase in city size, as well as the 95% confidence interval for the estimate. For most countries, the estimated coefficient falls between 0.1 and 0.6, meaning that the share of skilled workers increases on average by 0.1 to 0.6 percentage points if the size of a city increases by 10%.

Yet, high levels of productivity in cities are not only due to sorting. Even when controlling for the education level of workers, their personal characteristics, such as age and sex, as well as the characteristics of the industries in which they work, workers in large cities are more productive than workers in small cities, who in turn are more productive than workers in rural areas (Annex Table 1.A.8 and Annex Table 1.A.7). Thus, the data suggest that cities in Africa generate agglomeration economies just as cities in other parts of the world do.

Figure 1.21. Percentage point increase of skilled jobs in response to a 10% increase in city size



Note Estimated increase in the share of skilled jobs in a city if city size increases by 10%. Occupational categories provided by DHS have been classified into skilled/unskilled. Skilled occupations are defined as professional, technical, managerial, clerical and skilled manual work. Unskilled occupations are defined as sales, agriculture, household and domestic services, and unskilled manual work. See Annex Table 1.A.2 for details on the estimated specification.

Source OECD/SWAC calculations based on ICF (1990-2019[11]) and OECD/SWAC (2018[2]).

Box 1.5. What are agglomeration economies?

Agglomeration economies describe a set of factors that increase productivity, wages and innovation when economic activity is located in close geographical proximity to each other. Cities and especially large cities are the main beneficiaries from agglomeration economies because of the high density of economic activity that they host. Most empirical studies typically find that a 10% increase in population size or population density leads to a 0.2%-0.5% increase in productivity, with the most reliable estimates often falling at the lower end of this range (Combes and Gobillon, 2015[19]). In a meta-analysis of 70 studies from developing countries, Grover, Lall and Timmis (2021[20]) conclude that the magnitude of agglomeration economies in low- and middle-income countries is roughly similar and if anything, slightly higher than in high-income countries.

The driving forces behind agglomeration economies have already been discussed by Marshall (1890[21]), who highlighted three mechanisms that are still considered to be among the most important: *sharing*, *matching* and *learning* (Puga, 2010[22]). Beyond those, other explanations have been proposed and the issue is still being actively researched.

Sharing

The larger a city, the more potential users for a service or an infrastructure exist. This makes it possible in large cities to provide public or private services and infrastructure that are not viable in smaller cities. Businesses that have access to them can operate more productively than businesses that do not. For example, in a large city, a privately run industrial park targeted to the chemical industry can be viable. Among other services, the park might offer a pipeline system to provide various commonly needed industrial gases to client firms that locate within the park. A chemical firm located within the park could thus operate more productively than a similar chemical firm in a small city or rural area that does not have access to a similar system and needs to ship those gases by truck.

Beyond sharing access to services and infrastructure, firms may also share a network of suppliers, thereby having access to more specialised inputs, which also raises productivity.

Matching

In large cities, workers have access to a large number of potential jobs, and employers can choose from a large number of potential applicants. This makes it more likely that a worker finds a position that uses his or her skills to the best possible degree and that firms will find an applicant who has exactly the skills required. For example, a construction worker might have acquired training in an advanced welding technique that is needed only infrequently. In a rural area or a small city, it is unlikely that he or she would find a position that frequently requires such welding skills. The worker would most likely work for a small construction firm and use his or her specialised skills only infrequently. However, in a large city, the chances are higher that the worker could find a job specialised in the welding technique, for example with a large construction firm. In this case, the worker would be able to use his or her specialised skill more frequently and would work more productively than in rural areas.

Learning

Firms and workers become more productive by imitating the approaches of successful competitors and colleagues. As the number of firms and workers in cities is larger than in rural areas, the potential to learn from each other is larger, too. For example, a worker in a large city is likely to encounter many slightly different approaches to the same task, because he or she might speak to colleagues in other firms, work for several firms over the course of a career or observe other firms while working. Some of these approaches will be more efficient than others and the worker is likely to learn from those that work best, thus raising his or her productivity. In smaller cities and rural areas, where fewer similar jobs exist, the potential for learning is limited.

Beyond these sources of externalities discussed by Marshall (1890[21]), another important source has been highlighted by Jacobs (1969[23]). Cities generate innovation because a large number of people from different professions meet. In these interactions, new ideas are created from existing knowledge. As many innovations tend to spread locally first, they benefit in particular the cities in which they were invented.

Urbanisation has generated almost one-third of Africa's per capita GDP growth since 2020

If the magnitude of agglomeration economies is known, it is possible to conduct back-of-the-envelope estimates of how urbanisation affects GDP. The key measure of agglomeration economies is the so-called city-size elasticity of productivity. This indicates by how much productivity increases if city size increases. To estimate the GDP effect of urbanisation in Africa, average city-size elasticities for five African countries (Ethiopia, Malawi, Nigeria, Tanzania, and Uganda) have been obtained (see Box 1.6). On average, labour productivity[5] is estimated to increase by 0.3% if the urban population increases by 10% (see Specification 2 Annex Table 1.A.7). These numbers can be applied to the observed growth of urban and rural areas in order to get a first-order approximation of the consequences for GDP.

Across Africa, the current urbanisation process contributes 0.33 percentage points annually to per capita GDP growth, even without taking into account additional long-run and second-order benefits from urbanisation (e.g. due to the better education that children in cities receive). This is 29% of the total average annual per capita GDP growth across Africa between 2001 and 2020. Thus, even if second-round effects from higher education levels obtained by rural residents are not considered, urbanisation provides a significant contribution to Africa's per capita GDP growth.

The effect of urbanisation on GDP can be divided into two components. First, the share of the population that lives in more productive urban areas instead of in less productive rural areas increases due to urbanisation. This shift in population distributions increases national GDP levels and hence average per capita GDP. Second, cities become more productive due to the inflow of additional workers, because larger cities have higher productivity levels than smaller ones. In terms of magnitude, the first component contributes approximately two-thirds, while the second component contributes approximately one-third to the predicted per capita GDP growth. The growing share of people living in more productive cities increases per capita GDP by 0.22 percentage points, while cities becoming more productive due to their larger size adds 0.11 percentage points.[6]

Several important caveats must be noted. On an econometric level, the estimated magnitude of agglomeration economies is subject to considerable uncertainty, due to the conceptual issues discussed in Box 1.6 and due to statistical noise. The city-size elasticity of productivity of 0.03 that is used for the back-of-the-envelope estimate is at the lower end of comparable estimates for developing countries (see Gover, Lall and Timmis (2021[20])). For comparison, if the city-size elasticity was twice as high (an estimate that would fall at the upper end of range of estimates in Gover, Lall and Timmis (2021[20]), the contribution of urbanisation to annual per capita GDP growth would be 0.56 percentage points, or 50% of total average annual per capita GDP growth between 2001 and 2020.

On a conceptual level, it is impossible to capture all consequences of urbanisation. The estimates provide only the GDP effect from productivity gains due to agglomeration economies. They do not take into account other consequences of urbanisation, for example the fact that it causes structural changes to the economy or that it changes the characteristics of the workforce (e.g. because children in urban areas receive more education than in rural areas). Moreover, the estimates only focus on productivity and do not take into account negative externalities from urban growth, such as increasing congestion or exposure to pollution. Thus, the estimates obviously do not capture the full impact of urbanisation, especially over longer time horizons.

Taken together, these caveats imply that the estimates above can at most provide a ballpark range of the medium-term economic gains from urbanisation. They should not be considered precise predictions, nor should they be seen as reflecting all the economic and social processes that are induced by urbanisation. It seems likely that the numbers above underestimate the long-term benefits of urbanisation, in particular in light of the significantly higher levels of education that urban residents receive compared to rural residents. These educational benefits will affect African economies for many decades, but their impact is hard to capture.

Box 1.6. Estimating agglomeration economies in Africa

Several approaches have been developed to estimate agglomeration economies (see Combes, Duranton and Gobillon (2010[24]) for an overview). All have in common that they require large and detailed data on firms and/or workers. The most common approach following Combes, Duranton and Gobillon (2008[25]) uses individual-level data of workers, for example from labour force surveys, to estimate the relationship between productivity and city size. In a first step, city fixed effects of productivity are estimated while controlling for a variety of factors, including worker characteristics (e.g. age, sex, education) and worker fixed effects, occupation and industry. In a second step, the predicted city fixed effects are regressed on population size or density, potentially using an instrumental variable strategy to obtain exogenous variation in those factors.

The only cross-country individual-level dataset containing the required information for Africa is the LSMS data discussed in Box 1.1. Compared to data sources typically used to estimate agglomeration economies, such as labour force surveys, it has several limitations, including a lower number of observations, less detailed information on occupations and industries, and less precise measures of key variables, such as wages. Despite these drawbacks, the data offers the possibility of estimating agglomeration economies in the spirit of Combes, Duranton and Gobillon (2008[25]) if it is matched to urban areas, as discussed in Box 1.2.

Several simplifications have to be made, by comparison with Combes, Duranton and Gobillon (2008[25]) to deal with limitations in the data that is available. First, information on workers is limited by the information available in the LSMS data, and it is not possible to include worker fixed effects in the estimation. The number of individuals in the data who move from one place to another is too low to identify city fixed effects. Second, a single-stage specification is employed rather than a two-stage approach, because it yields more stable results, given the low number of observations. Third, because few data are available on Africa's cities, area covariates are limited to a few geographical indicators.

Given these limitations, two main specifications are estimated. Annex Table 1.A.8 shows estimates of the productivity differentials by city-size class for all observations, using rural observations as a baseline. Annex Table 1.A.7 provides estimates of city-size elasticities using only urban observations. All observations are weighted so that each city receives equal weight in the estimates.

Box 1.7. Assumptions made to approximate the effect of urbanisation on GDP

To approximate the effect of urbanisation on GDP based on city-size elasticities of productivity, a number of assumptions have to be made. The following assumptions are used.

- The population of each city grows according to the observed annual population growth rate between 2000 and 2010. If a city did not exist in 2000, it is assumed to grow at the average growth rate of cities, that is, 3.5%. Rural populations of each country are assumed to grow at the average annual growth rate of the rural population of the respective country in 2000 and 2010.[7]
- All urban population growth takes place within existing cities. No new cities emerge, and cities do not merge with each other.
- Cities with 10 000 inhabitants have 18% higher productivity levels than rural areas. This is a conservative approximation, based on the estimates in Annex Table 1.A.8, which indicate that cities with between 10 000 and 50 000 inhabitants have a 21% higher productivity level when controlling for individual and firm-level characteristics.
- From a population size of 10 000 onwards, the city-size elasticity of productivity is 0.03, as estimated in Specification 2 in Annex Table 1.A.7. In other words, if a city grows by 10% in population its productivity increases by 0.3%. Rural productivity remains constant.
- Changes in labour productivity translate one-to-one into per capita GDP changes.[8]

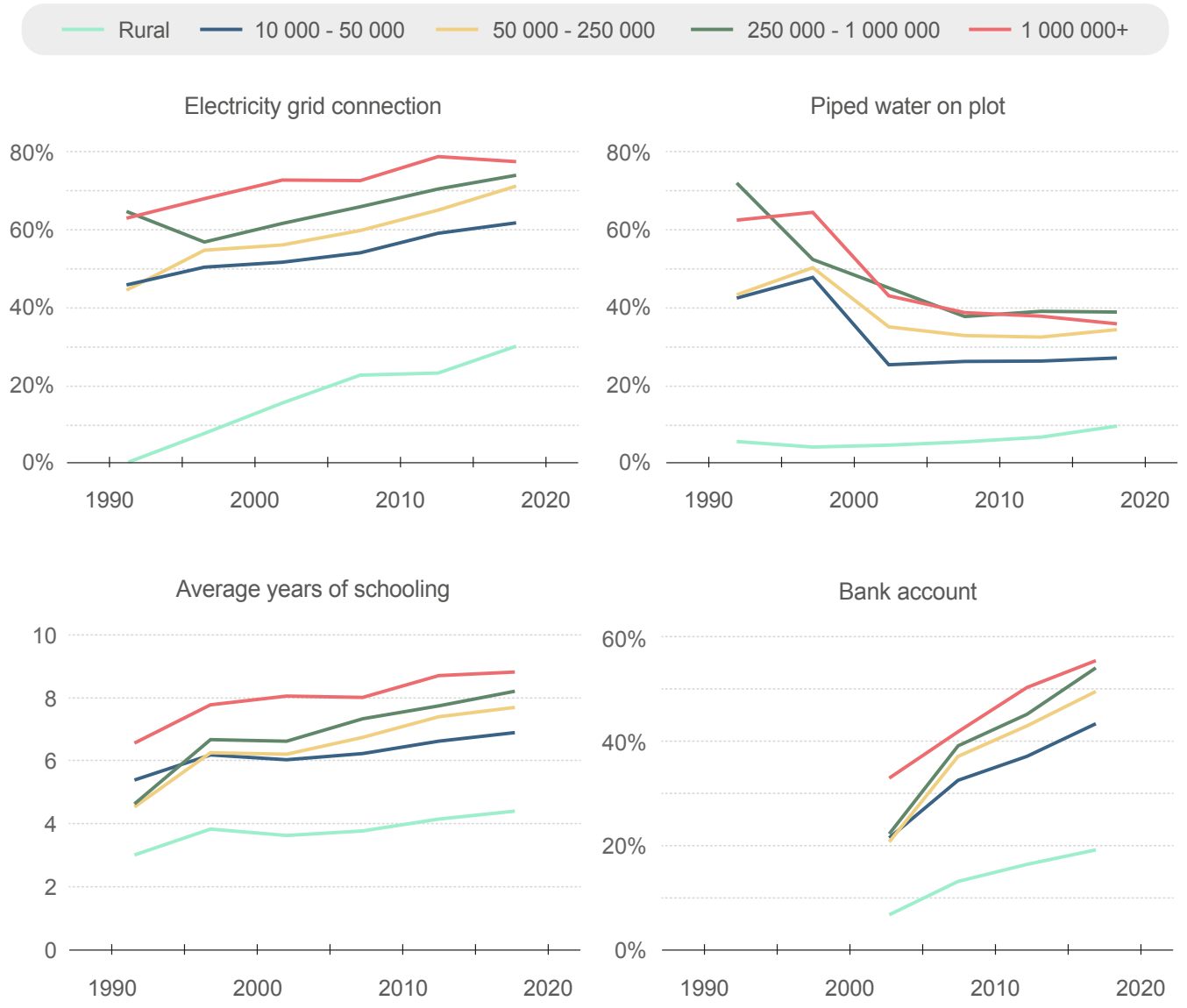
Based on these assumptions, per capita GDP levels relative to rural areas for cities of any size any size can be estimated. Once these are known, it is straightforward to obtain total GDP levels with and without population growth and estimate the average per capita GDP growth caused by the abovementioned urban and rural population growth. Since the estimates are scale-invariant, it does not matter which initial GDP level is assumed. The predicted growth rate will always be the same.

Cities have maintained their relative advantage, despite tripling in size since 1990

One of the most under-appreciated achievements of African cities over the last 30 years has been their consistently better performance compared to rural areas, despite absorbing large numbers of rural-urban migrants. In 1990, 3 300 cities with an average of 57 000 inhabitants existed in Africa. By 2015, those cities had grown to more than 140 000 inhabitants on average, and they probably attained an average population of 170 000 in 2020. In addition, another 4 900 cities with an average population of 22 000 inhabitants emerged during this period. Throughout this phase of extremely rapid population growth, cities managed to maintain their above-average performance. Since 1990, they have had a consistently higher share of skilled jobs, higher wealth levels and better infrastructure. If an indicator changed at the national level, the respective trends in rural and urban areas usually moved in parallel.

Figure 1.22 shows the evolution in the share of residents with electricity grid connection, piped water on the plot, the average years of schooling and the share of residents in households with a bank account. Three of the four outcomes show a clear upward trend across all territories, with larger cities mostly preserving their advantage over smaller cities and rural areas. An exception to the largely positive development is access to piped water. The share of residents in households that have access to piped water on their plot declined strongly in cities in the late 1990s and early 2000s. However, it has stabilised since then, and has remained constant, even as cities continued to grow strongly.

Figure 1.22. Performance of key outcomes in cities and rural areas over time



Note Time trends have been constructed by de-meaning city-level estimates from individual DHS surveys with the respective country average across all DHS surveys, to take into account the fact that the set of countries surveyed by the DHS varies from year to year. To obtain meaningful values on the vertical axis, the average across DHS surveys from all countries and years has been added. Finally, annual averages for city-size classes have been averaged into five-year bins (1990-94, 1995-99, 2000-04, 2005-09, 2010-14, 2015-19) to reduce noise.

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

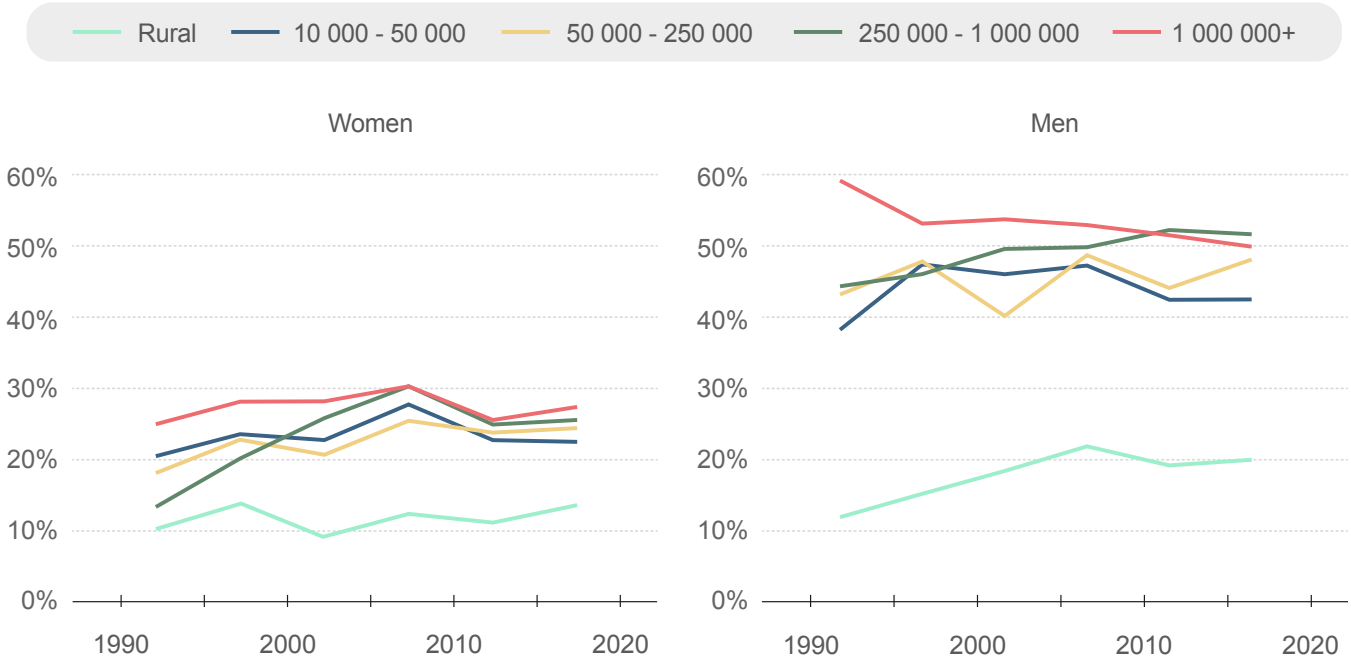
An implication of this stable pattern is that urbanisation benefited economic growth and improved living standards. Even if the relative performance of cities has remained constant, urbanisation has made a major contribution to an increase in living standards. Cities were able to absorb rural migrants as well as natural population growth, and to continue to perform well in their national context. As the urban population increased from less than 190 million people in 1990 to 570 million people in 2015 and approximately 700 million people in 2020, the capacity of cities to absorb this growth without measurable declines in living standards has allowed several hundred million people to work in better jobs, with improved access to services and infrastructure in cities. Absolute numbers provide another way to show the achievement of African cities. In the 30 years from 1990 to 2020, almost 390 million inhabitants were connected to the electricity grid.[9] In 2020, about 270 million more urban residents live in households with a bank account than in 2000.

Africa's urban economies have shown little measurable change in the past 30 years

In rapidly growing countries, cities drive the modernisation of the economy. In countries such as China, urbanisation went hand in hand with a rapid expansion of the manufacturing sector in cities and a subsequent shift towards higher value-added economic activities. In Africa in recent years, despite the persistent good performance of cities compared to rural areas, cities do not appear to have led such a change.[10]

The percentage of skilled workers in different city-size classes has remained virtually constant (Figure 1.23).[11] Although the share of some occupations that could be associated with a shift towards a more advanced economy has grown moderately (e.g. in professional/technical/managerial and service sector jobs), this growth has been distributed evenly, with no indication that cities have seen disproportionate growth (Annex Table 1.A.4).

Figure 1.23. Share of skilled jobs by city size over time for women and men



Note Time trends have been constructed by demeaning city-level estimates from individual DHS surveys with the respective country-average across all DHS surveys, to account for the fact that the set of countries surveyed by the DHS varies from year to year. To obtain meaningful values on the vertical axis, the average across DHS surveys from all countries and years has been added. Finally, annual averages for city-size classes have been averaged into five-year bins (1990-94, 1995-99, 2000-04, 2005-09, 2010-14, 2015-19) to reduce noise. Occupational categories provided by DHS have been classified into skilled/unskilled as follows: skilled occupations are defined as professional, technical, managerial, clerical and skilled manual work. Unskilled occupations are defined as sales, agriculture, household and domestic work, services, and unskilled manual work.

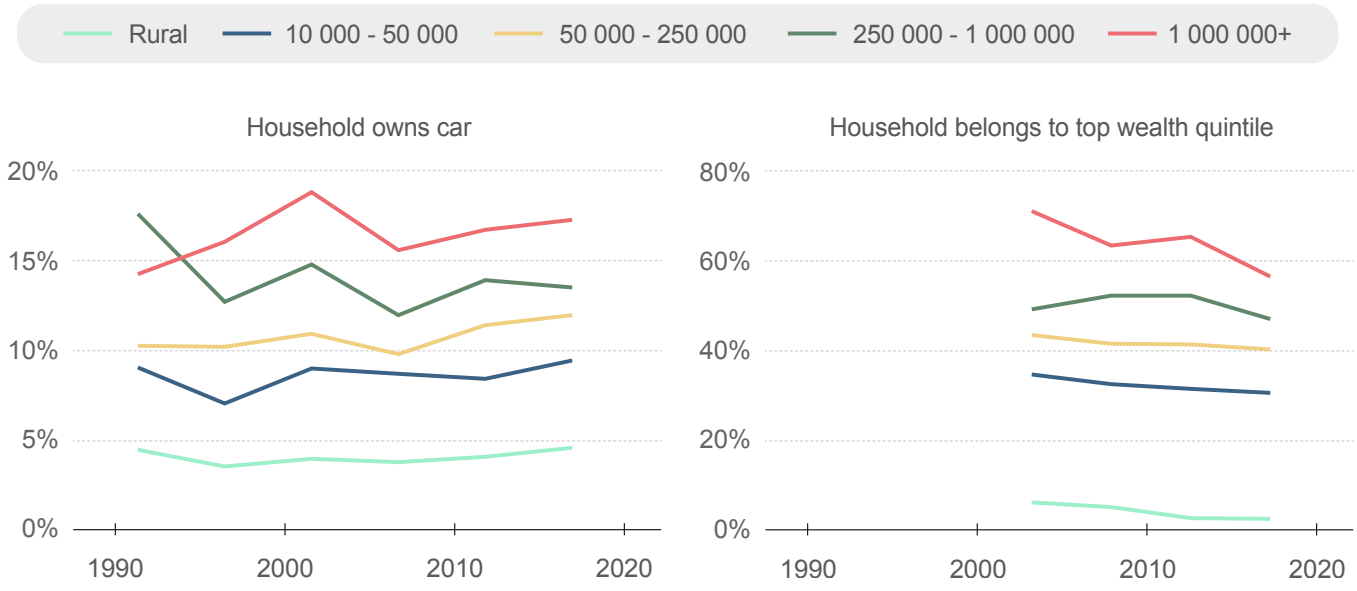
Source OECD/SWAC calculations based on ICF (1990-2019[11]) and OECD/SWAC (2018[12]).

Moreover, other data sources also point towards an absence of a significant modernisation of urban economies. Firm-level data shows that between 2010 and 2020, the share of firms engaging in R&D has declined by more than 10 percentage points. Over the same time, the share of firms engaged in export activity has remained approximately constant, even though the share of firms that follow international quality norms has declined by 5 percentage points.

Likewise, there is no indication of growing disparities in wealth or income that could be expected in a scenario in which cities lead an economic transformation. Emerging economies often experience a rise in income inequality as income levels rise, which starts to decline again as countries approach high-income status (following the well-known Kuznets curve). Rising inequality in emerging economies usually has a strong spatial dimension, as income levels in cities pull away from income levels in rural areas (see, for example, Yang (1999[26])). Yet, in Africa, no evidence of such a pattern exists. Changes in the wealth distribution have been minor.

Mirroring this trend, ownership rates of durable consumption goods have been largely stable in the past 30 years, in both cities and rural areas. For example, there has been virtually no change in average car ownership rates across cities of different sizes and rural areas (Figure 1.24).[12] The share of households owning a refrigerator has grown by approximately 10 percentage points in cities as well as in rural areas, but remains below 50% even in large cities. Only the share of households owning a television has grown substantially, by 20 to 30 percentage points. This growth has been a national trend that affected cities and rural areas equally.

Figure 1.24. Evolution of car-ownership and wealth distribution by city-size



Note Time trends have been constructed by de-meaning city-level estimates from individual DHS surveys with the respective country-average across all DHS surveys, to take into account that the set of countries surveyed by the DHS varies from year to year. To obtain meaningful values on the vertical axis, the average across DHS surveys from all countries and years has been added. Finally, annual averages for city-size classes have been averaged into five-year bins (1990-94, 1995-99, 2000-04, 2005-09, 2010-14, 2015-19) to reduce noise.

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

These trends suggest a nuanced conclusion. On the one hand, they clearly show the massive benefits of urbanisation in Africa, which are likely to continue. On the other hand, the absence of significant change in the urban economic structure indicates a persistent challenge for broader transformation. To ensure that cities drive lasting economic development, further policy measures are needed, as will be discussed in the subsequent chapters of this report.

Rural areas benefit from proximity to cities

Cities are essential for the functioning of rural economies. Depending on their size and proximity, different cities play different functions for rural areas. Cities serve as entry points to more connected and diversified economies for rural areas. They provide markets where agricultural producers can sell their products and rural households can access services and purchase basic necessities.[13] In recent decades, the centre of gravity of the continent's food system has shifted from rural areas to cities and towns. Today, cities and towns not only offer the greatest commercial opportunities for a region's agricultural producers, but also act as nodes for food trade and markets. They are transport hubs that provide access to transport networks for goods and people. Intellectual and financial service providers, such as banks, accountants, lawyers and engineers, tend to be located in cities. Although rural businesses might need such services only infrequently, they are nevertheless indispensable for running a modern business. Often, they can be found in midsized cities, such as regional capitals, which can serve a large surrounding rural area.

Large cities offer specialised functions useful for some rural businesses. They serve as gateways to foreign markets, as they often host the local seats of multinational companies. They are usually the national financial centre, with major airports and ports. Usually, a country's largest city is its capital and provides access to the government, which can be helpful for obtaining public tenders and influencing legislation. Large cities also tend to have the most specialised suppliers and to offer large markets of potential customers.

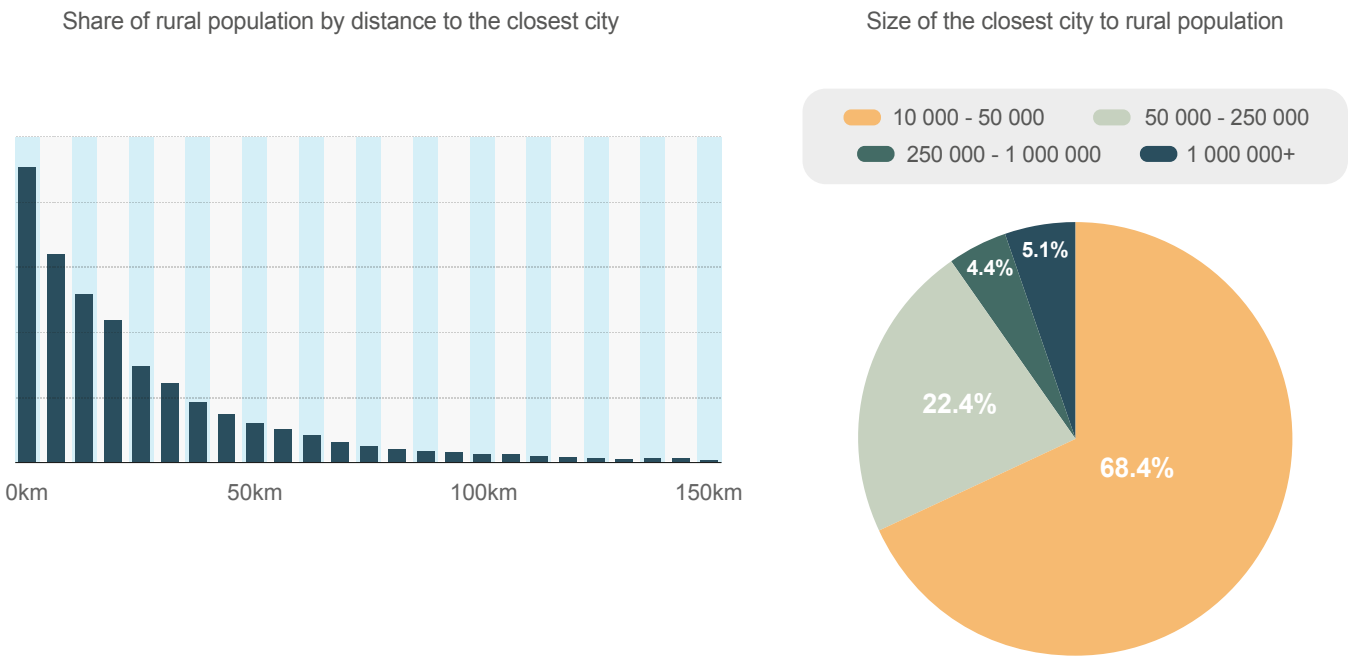
Being located close to cities facilitates businesses' access to the facilities, services and market opportunities noted earlier. This reduces operating costs and offers opportunities for business development. Rural areas located close to cities can more easily be served by essential infrastructure that requires connections to larger networks, such as transport and electricity. These advantages are reflected in the structure of the economy in rural areas, which in turn influences the living standards of rural residents.

Small and medium-sized cities serve as urban hubs for rural areas

Africa's rapid urbanisation is not only changing the urban landscape but also has profound effects on rural areas. Between 1990 and 2015, the number of cities in Africa more than doubled, from 3 319 to 7 721, with many cities emerging in rural areas with high population densities. As a direct result of the growing number of cities, more and more rural households live close to cities. Of rural residents, 50% live within 14 kilometres of a city, and 90% live within 47 kilometres. Fewer than 1.5% of rural residents are more than 100 kilometres from the closest city. Figure 1.25 shows the share of the rural population by distance to the closest city. The increasing proximity to urban areas allows a growing share of rural residents to access the services and amenities that cities offer.

Most rural households live closest to small and midsized cities. For more than two-thirds of rural residents, the closest city has between 10 000 and 50 000 inhabitants, while more than 20% of rural residents live closest to a city with between 50 000 and 250 000 inhabitants (Figure 1.25, right). In contrast, less than 10% of the rural population lives closest to a city of more than 250 000 inhabitants. These numbers underscore the importance of small and midsized cities, which are home to more than 250 million Africans (44% of the total urban population). They are also the closest urban centre for a large majority of rural households.

Figure 1.25. Distance and size of closest city to rural population



Note Based on data for AGO, BEN, BFA, BDI, CIV, CMR, COD, COM, GAB, GHA, GIN, KEN, LBR, LSO, MDG, MLI, MOZ, MWI, NAM, NGA, RWA, SEN, SLE, TCD, TGO, TZA, UGA, ZAF, ZMB, ZWE.

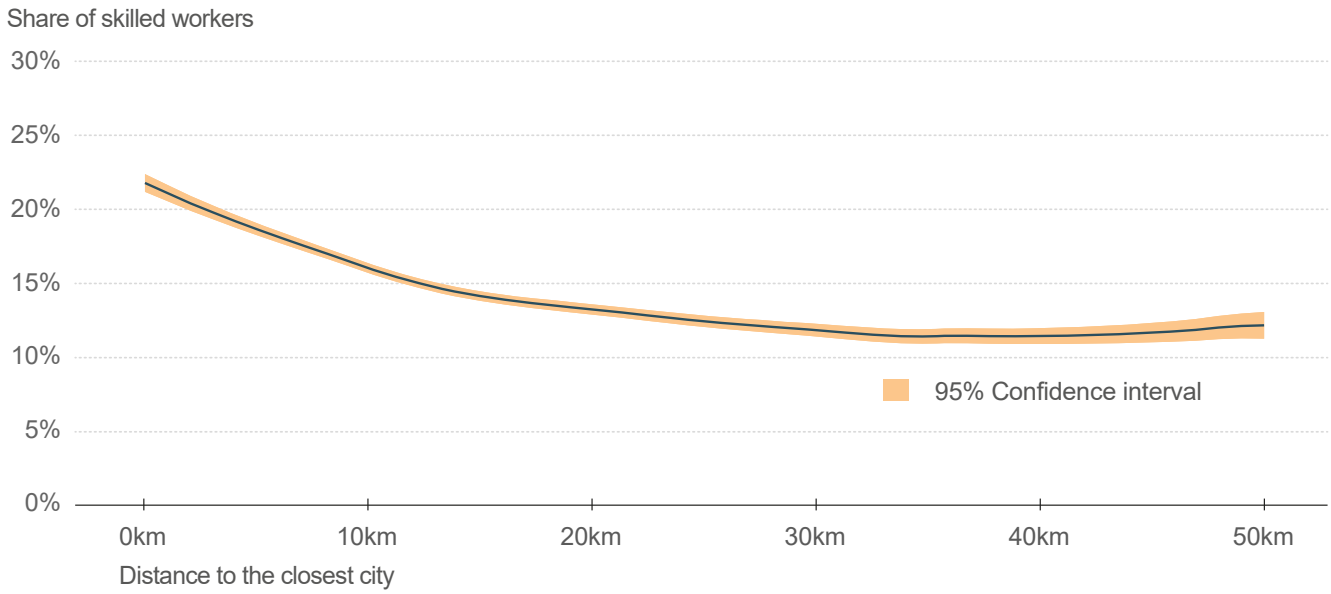
Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

Rural areas close to cities perform better than remote rural areas

The benefits that rural areas receive from proximity to cities become clear if outcomes are plotted against distance to the closest city. Figure 1.26 shows the share of skilled workers in rural areas depending on distance to the closest city of at least 10 000 inhabitants. In rural areas just outside cities, the share is 22%, less than half the average of the share of skilled workers in cities, but still 4 percentage points above the average for rural areas. It declines steadily with increasing distance to the closest city, up to a distance of approximately 30 kilometres, where it stabilises at approximately 13%. The share of skilled jobs in rural areas close to cities is thus almost twice as high as the share of skilled jobs in remote rural areas.

Not shown on the figure are individuals who live more than 50 kilometres away from the closest city, less than 10% of all individuals in the data. At those distances, the relationship between distance to cities and outcome variables becomes unstable and begins to fluctuate. This can partly be explained by the fact that few people live so far away from cities. The number of observations in the data is thus low, which increases the statistical noise of the estimates. However, this may partly be an indication that remote rural areas often have distinct economies, which diverge from general trends.

Figure 1.26. Share of skilled workers in rural areas by distance to nearest city



Note Local polynomial smoothing (Epanechnikov kernel, degree = 0, bandwidth = 2.5).

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

Similar patterns can be found in a range of other outcomes. Figure 1.27 shows the relationship between distance to the closest city and outcomes such as average years of education, wealth levels, services and infrastructure access. Across all outcomes, there is a decreasing relationship with increasing distance to the nearest city, but the magnitude varies strongly from outcome to outcome. While the share of households with a bank account declines by a factor of three progressing from a distance of 1 kilometre to a distance of 50 kilometres, the relative decline in the share of residents with a mobile phone is much smaller.

Figure 1.27. Other outcomes in rural areas by distance to the closest city

Average outcome in rural areas depending on distance to the closest city of at least 10 000 inhabitants

Note Local polynomial smoothing (Epanechnikov kernel, degree = 0, bandwidth = 2.5).

Source OECD/SWAC calculations based on ICF (1990-2019[1]) and OECD/SWAC (2018[2]).

Distance to the closest city (of any size) is by far the most important predictor of socio-economic condition. In addition, proximity to midsized cities of between 50 000 and 250 000 inhabitants, as well as proximity to large cities of above 1 million inhabitants, is correlated with better outcomes even when controlling for distance to the nearest cities. The benefits of distance to cities of different sizes are thus cumulative. When comparing two rural residents who live at a distance of 20 kilometres from a small city, but at 100 kilometres and 200 kilometres, respectively, to a large city of 1 million inhabitants, the resident closer to the large city is likely to be better off than the resident who lives farther away.

Significantly, the benefits of proximity to cities accrue regardless of the population density of rural areas. Although denser rural areas perform better in some dimensions, and rural areas that are close to cities tend to be more densely populated than remote rural areas, the benefits of proximity to cities persist even when controlling for population density in rural areas. This suggests that cities offer distinct benefits that do not emerge when the same number of people live close together in a rural setting (Annex Table 1.A.5 and Annex Table 1.A.6).

Smaller cities close to large cities perform better in some dimensions

It is not only rural areas that benefit from proximity to cities. Small and midsized cities close to large cities also perform better than small and midsized cities far from large cities, even though statistically significant

correlations can be found in fewer outcomes. Notably, average years of education are higher in small and midsized cities close to large cities, which is driven in particular by a higher share of residents with secondary or higher education. This could indicate that small and midsized cities benefit from better access to education offered in large cities nearby. By contrast, the performance of small cities does not depend on whether they are located close to midsized cities. Only proximity to large cities of above 1 million inhabitants is systematically correlated with better outcomes (Annex Table 1.A.6).

Notes

1 It should be noted that wage and consumption data is calculated from Living Standard Measurement Survey data, which contains observations from only 30 000 individuals in six countries. The estimates are thus much less precise than the majority of the estimates in this chapter, which are based on more than 4 million observations collected by the Demographic and Health Survey from 32 countries.

2 This probability has been calculated by matching the built-up areas defined by Africapolis with the spatial population distribution according to the WorldPop population grid (Linard et al., 2012[28]; WorldPop[29]).

3 This statistic is based on a DHS wealth index classification of households into wealth quintiles. As some scholars criticise the DHS wealth index for underestimating the wealth of rural households, the figures potentially underestimate wealth levels in rural areas in comparison to urban areas.

4 See OECD (2021[27]) for a discussion of the governance challenges involved in providing water infrastructure.

5 Labour productivity is proxied by wages, as is common in the literature on the topic.

6 Per capita GDP in cities is predicted to increase by 0.22 percentage points. Because almost exactly half of Africa's population lives in cities, this contributes 0.11 percentage points to overall per capita GDP growth.

7 Averages from 2000-2010 are used because they are more reliable than data for later periods. In the absence of censuses, recent population data is often based on projections and tends underestimate urbanisation.

8 This assumption implies that total factor productivity (TFP) growth due to agglomeration economies is identical to labour productivity growth and that the employment rate and capital stock remain unaffected by urbanisation.

9 In the early 1990s, 62% of the 190 million urban residents were connected to the electricity grid, but by the late 2010s, the share had risen to 72% of the 700 million urban residents.

10 In the early 2000s, 23% of the 290 million urban residents lived in households with bank accounts, while in the late 2010s, the share had risen to 48% of the 700 million urban residents.

11 Although it might appear that there are differential trends for the share of male skilled workers in cities of between 250 000 and 1 million inhabitants and cities of more than 1 million, Annex Table 1.A.4 shows that these trends are not significant (i.e. they are statistically indistinguishable from chance).

12 This does not conflict with the fact that car ownership levels at the national level have risen, as people moved from rural areas with low car ownership rates to cities with higher car ownership rates.

13 As countries develop, the importance of market towns as points of sale for agricultural producers declines, because of the emergence of wholesale traders that reduce the reliance on local markets. At the same time, market towns become more important as places to purchase goods, as living standards and disposable incomes of rural populations rise.

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Annex 1.A. Tables

Annex Table 1.A.1. Main data sources used in this report

Country	Available data sources	Income group	Level of urbanisation	Number of cities	Cities with available DHS data	Cities with available LSMS data
Angola	DHS	Lower-middle income	63%	96	75	0
Benin	DHS	Lower-middle income	49%	122	74	0
Burkina Faso	DHS	Low income	29%	101	49	0
Burundi	DHS	Low income	21%	33	20	0
Cameroon	DHS	Lower-middle income	58%	147	87	0
Chad	DHS	Low income	29%	93	46	0
Comoros	DHS	Lower-middle income	48%	15	10	0
Côte d'Ivoire	DHS	Lower-middle income	49%	220	60	0
Democratic Republic of the Congo	DHS	Low income	45%	553	85	0
Egypt	DHS	Lower-middle income	93%	1061	125	0
Ethiopia	DHS/LSMS	Low income	27%	510	97	299
Gabon	DHS	Upper-middle income	81%	14	14	0
Ghana	DHS	Lower-middle income	52%	209	121	0
Guinea	DHS	Low income	37%	42	29	0
Kenya	DHS	Lower-middle income	65%	126	95	0
Lesotho	DHS	Lower-middle income	26%	10	0	0
Liberia	DHS	Low income	42%	21	10	0
Madagascar	DHS	Low income	22%	68	21	0
Malawi	DHS/LSMS	Low income	30%	77	40	0
Mali	DHS/LSMS	Low income	32%	94	40	65
Mozambique	DHS	Low income	33%	167	37	16
Namibia	DHS	Upper-middle income	40%	17	0	0
Nigeria	DHS/LSMS	Lower-middle income	53%	1 236	76	0
Rwanda	DHS	Low income	56%	41	17	0
Senegal	DHS	Lower-middle income	51%	74	362	172
Sierra Leone	DHS	Low income	37%	25	19	0
South Africa	DHS	Upper-middle income	70%	502	62	0
Tanzania	DHS/LSMS	Lower-middle income	38%	249	25	0
Togo	DHS	Low income	50%	53	213	0
Uganda	DHS/LSMS	Low income	39%	125	149	148
Zambia	DHS	Lower-middle income	44%	80	28	0
Zimbabwe	DHS	Lower-middle income	34%	53	79	75

Note This table lists the countries for which microdata has been available for any time between 2010 and 2019. The majority of tables and figures in this chapter are based on data from these countries. Additional and/or different datasets have been used as indicated in the notes to each table/figure.

Annex Table 1.A.2. City-size – skilled-worker-share – elasticity by country

	Share of skilled worker
log(pop) × AGO	0.0444**
	(0.0166)
log(pop) × BDI	0.0170
	(0.0419)
log(pop) × BEN	0.0356*
	(0.0156)
log(pop) × BFA	0.0728*
	(0.0305)
log(pop) × CIV	0.0138
	(0.0253)
log(pop) × CMR	0.0343
	(0.0183)
log(pop) × COD	0.0384*
	(0.0156)
log(pop) × COM	0.00487
	(0.0910)
log(pop) × ETH	0.0270*
	(0.0137)
log(pop) × GAB	-0.00331
	(0.0448)
log(pop) × GHA	0.0371
	(0.0191)
log(pop) × GIN	0.0404
	(0.0339)
log(pop) × KEN	0.00468
	(0.0110)
log(pop) × LBR	0.0395
	(0.0434)
log(pop) × LSO	0.0388
	(0.0725)
log(pop) × MLI	0.00855
	(0.0305)
log(pop) × MOZ	0.0414
	(0.0222)
log(pop) × MWI	0.0354
	(0.0314)
log(pop) × NAM	0.0721***
	(0.0204)
log(pop) × NGA	0.0361***
	(0.00794)

	Share of skilled worker
log(pop) × RWA	0.0366
	(0.0208)
log(pop) × SEN	0.0477*
	(0.0210)
log(pop) × SLE	-0.00286
	(0.0315)
log(pop) × TCD	0.0528
	(0.0342)
log(pop) × TGO	0.0384
	(0.0367)
log(pop) × TZA	0.00886
	(0.0120)
log(pop) × UGA	0.0265
	(0.0202)
log(pop) × ZAF	-0.00256
	(0.0121)
log(pop) × ZMB	0.0160
	(0.0158)
log(pop) × ZWE	0.0179
	(0.0284)
Country-year fixed effects	YES
Constant	0.135**
	(0.0427)
N	2 349

Note Standards errors are in parentheses. Significance at the 1%, 5% and 10% levels are denoted respectively by *, **, ***.

Annex Table 1.A.3. Change over time by city-size class, 2000-20

	(1) Years of schooling	(2) Share of skilled workers	(3) Employment share	(4) Share of house-holds in top wealth quintile	(5) Share of house-holds with bank account	(6) Electricity access	(7) Piped water on plot
Linear time trend	0.0672***	-0.000127	0.0116***	0.00195	0.00938*	0.0102*	0.00598
	(0.0115)	(0.00253)	(0.00323)	(0.00208)	(0.00407)	(0.00406)	(0.00347)
City 10k-50k	1.688***	0.262***	0.0737	-0.220***	0.0112	0.309***	0.328***
	(0.238)	(0.0549)	(0.0663)	(0.0484)	(0.0989)	(0.0876)	(0.0863)
City 50k-250k	1.993***	0.236***	0.0194	-0.229***	0.0709	0.405***	0.390***
	(0.308)	(0.0538)	(0.0810)	(0.0476)	(0.120)	(0.113)	(0.0833)
City 250k-1m	2.094***	0.359***	0.0347	-0.240***	0.0315	0.366*	0.475***
	(0.436)	(0.0779)	(0.134)	(0.0421)	(0.154)	(0.140)	(0.107)
City 1m+	3.141***	0.425***	-0.00295	-0.258***	0.163	0.583***	0.514***
	(0.402)	(0.0641)	(0.0823)	(0.0410)	(0.111)	(0.146)	(0.0891)
(City 10k-50k)×Year	0.00539	-0.000728	-0.00597*	-0.00124	0.00916*	0.00212	-0.00424
	(0.0112)	(0.00273)	(0.00286)	(0.00220)	(0.00415)	(0.00388)	(0.00370)
(City 50k-250k)×Year	0.0199	0.00215	-0.00417	-0.00224	0.00957	0.00124	-0.00391
	(0.0158)	(0.00260)	(0.00356)	(0.00210)	(0.00493)	(0.00527)	(0.00371)
(City 250k-1m)×Year	0.0231	-0.000905	-0.00512	-0.00297	0.0115	0.00542	-0.00612
	(0.0214)	(0.00343)	(0.00574)	(0.00202)	(0.00664)	(0.00618)	(0.00476)
(City 1m+)×Year	0.00453	-0.00434	-0.00159	-0.00192	0.00824	-0.00106	-0.00605
	(0.0183)	(0.00334)	(0.00407)	(0.00193)	(0.00468)	(0.00693)	(0.00422)
Country fixed effects	YES	YES	YES	YES	YES	YES	YES
Constant	1.552***	0.195***	0.529***	0.271***	-0.0556	0.0540	-0.0529
	(0.246)	(0.0514)	(0.0751)	(0.0462)	(0.0984)	(0.0895)	(0.0814)
N	3 350	2 833	2 853	3 803	2 884	3 937	3 937

Note All dependent variables are averages at the city level, as available from DHS surveys between 2000 and 2020. Cities 10k-50 – Cities 1m+ are a set of dummy variables indicating whether the city fell into the corresponding size class in 2000. Rural areas are the omitted base category. Standard errors cluster at country-year level in parentheses, * p<0.05, ** p<0.01, *** p<0.001. Specifications (2) and (3) use averages for male respondents only. Standards errors are in parentheses. Significance at the 1%, 5% and 10% levels are denoted respectively by *, **, ***.

Annex Table 1.A.4. Evolution of the occupation share by city-size class over time

	(1) Professional/ technical/ managerial	(2) Clerical	(3) Sales	(4) Agriculture	(5) Household and domestic	(6) Services	(7) Skilled manual	(8) Unskilled manual
Linear time trend	0.00206*	0.000786*	0.00190	-0.000240	0.000570	0.00219*	0.00116	0.00303*
	(0.000844)	(0.000299)	(0.00143)	(0.00460)	(0.000536)	(0.00102)	(0.00139)	(0.00117)
City 10k-50k	0.0776***	0.0164***	0.0412*	-0.322***	0.00812	0.0315**	0.101***	0.0357**
	(0.0120)	(0.00458)	(0.0181)	(0.0481)	(0.00442)	(0.0116)	(0.0173)	(0.0105)
City 50k-250k	0.0642***	0.00919	0.0619***	-0.395***	0.00437	0.0491*	0.117***	0.0585***
	(0.0165)	(0.00765)	(0.0160)	(0.0566)	(0.00609)	(0.0204)	(0.0194)	(0.0147)
City 250k-1m	0.0515***	0.0162*	0.0660**	-0.479***	0.00719	0.0556*	0.172***	0.0477*
	(0.0145)	(0.00698)	(0.0229)	(0.0648)	(0.0120)	(0.0271)	(0.0482)	(0.0184)
City 1m+	0.0975***	0.0261***	0.101***	-0.517***	0.00487	0.0443*	0.165***	0.0525**
	(0.0152)	(0.00635)	(0.0218)	(0.0577)	(0.00613)	(0.0191)	(0.0244)	(0.0192)
(City 10k-50k)×Year	-0.000205	-0.000312	0.00109	-0.00428	0.0000204	0.00139	-0.000743	-0.00175*
	(0.000997)	(0.000344)	(0.00149)	(0.00409)	(0.000344)	(0.000918)	(0.00142)	(0.000828)
(City 50k-250k)×Year	0.000857	0.000636	-0.000896	-0.00302	0.000505	0.000986	-0.000595	-0.00249
	(0.00152)	(0.000715)	(0.00137)	(0.00493)	(0.000528)	(0.00155)	(0.00159)	(0.00129)
(City 250k-1m)×Year	0.00288*	-0.000120	-0.000834	-0.000504	0.000670	0.000658	-0.00264	-0.00199
	(0.00141)	(0.000521)	(0.00174)	(0.00575)	(0.00105)	(0.00214)	(0.00351)	(0.00146)
(City 1m+)×Year	0.000164	-0.000232	-0.00245	0.00173	0.000673	0.00239	-0.00217	-0.00156
	(0.00120)	(0.000487)	(0.00174)	(0.00563)	(0.000554)	(0.00141)	(0.00208)	(0.00154)
Country fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
Constant	0.0168	-0.00287	0.0305	0.541***	-0.00180	0.00445	0.0764***	0.0138
	(0.00996)	(0.00351)	(0.0171)	(0.0511)	(0.00723)	(0.0137)	(0.0165)	(0.0127)
N	2 851	2 851	2 851	2 851	2 851	2 851	2 851	2 851

Note All dependent variables are averages at the city level, as available from DHS surveys between 2000 and 2020. Cities 10k-50k – Cities 1m+ are a set of dummy variables indicating whether the city fell into the corresponding size class in 2000. Rural areas are the omitted base category. Standard errors cluster at country-year level in parentheses, * p<0.05, ** p<0.01, *** p<0.001. Specifications (2) and (3) use averages for male respondents only. Standards errors are in parentheses. Significance at the 1%, 5% and 10% levels are denoted respectively by *, **, ***.

Annex Table 1.A.5. Distance to closest city and outcomes in rural areas

	(1) Log (years of education)	(2) Log (years of education)	(3) Has bank account	(4) Has bank account	(5) Has mobile phone	(6) Has mobile phone	(7) Electricity grid connection	(8) Electricity grid connection	(9) Piped water on plot	(10) Piped water on plot	(11) Top wealth quintile	(12) Top wealth quintile
Log distance to closest city	-0.0571**	-0.0522*	-0.0113***	-0.0105***	-0.0193***	-0.0169***	-0.0199***	-0.0160***	-0.00874***	-0.00506***	-0.00930***	-0.00761***
	(0.0212)	(0.0205)	(0.00221)	(0.00220)	(0.00247)	(0.00254)	(0.00365)	(0.00381)	(0.00176)	(0.00140)	(0.00134)	(0.00166)
Log distance to closest city above 50k inhabitants	-0.139***	-0.112***	-0.00824**	-0.00610*	-0.0101**	-0.00344	-0.00359	-0.000782	0.00320	0.00163	-0.00245	-0.00447**
	(0.0254)	(0.0295)	(0.00278)	(0.00278)	(0.00304)	(0.00312)	(0.00286)	(0.00293)	(0.00219)	(0.00218)	(0.00152)	(0.00141)
Log distance to closest city above 250k inhabitants	0.111*	0.116**	0.00243	0.00193	-0.000907	0.000439	-0.00331	-0.00335	-0.00487	-0.00155	0.000574	0.000681
	(0.0441)	(0.0409)	(0.00347)	(0.00354)	(0.00616)	(0.00644)	(0.00547)	(0.00552)	(0.00364)	(0.00295)	(0.00224)	(0.00236)
Log distance to closest city of above 1m inhabitants	-0.173***	-0.176**	-0.00638	-0.00491	-0.0152*	-0.0149	-0.0107	-0.0105	-0.00329	-0.00366	-0.00675*	-0.00893**
	(0.0486)	(0.0544)	(0.00380)	(0.00397)	(0.00715)	(0.00769)	(0.00653)	(0.00653)	(0.00228)	(0.00204)	(0.00278)	(0.00297)
Distance to closest port	-0.344**	-0.313*	-0.0165	-0.0143	-0.0165*	-0.00910	-0.0206**	-0.0153**	-0.000277	0.00365	-0.00507	-0.00378
	(0.119)	(0.129)	(0.00977)	(0.0101)	(0.00724)	(0.00769)	(0.00625)	(0.00551)	(0.00216)	(0.00232)	(0.00382)	(0.00450)
Log population within 10km radius		0.122***		0.00756*		0.0228***		0.0322***		0.0140***		0.0122**
		(0.0265)		(0.00302)		(0.00469)		(0.00517)		(0.00363)		(0.00397)
Log population within 50km radius		-0.0373		-0.00267		-0.00144		-0.0146*		-0.00479		-0.0120**
		(0.0519)		(0.00489)		(0.00806)		(0.00624)		(0.00375)		(0.00360)
Country-year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Constant	5.186***	4.086**	0.306***	0.232*	0.835***	0.531***	0.363***	0.172	0.0901***	-0.0330	0.139***	0.179**
	(0.669)	(1.274)	(0.0588)	(0.104)	(0.0402)	(0.132)	(0.0475)	(0.0931)	(0.0166)	(0.0654)	(0.0222)	(0.0521)
N	2 140 291	2 140 291	2 525 596	2 525 596	2 614 059	2 614 059	2 613 871	2 613 871	2 614 177	2 614 177	2 615 091	2615091

Note The sample includes all rural individuals covered by DHS surveys in Africa between 2010 and 2019. Standard errors cluster at country-year level in parentheses, * p<0.05, ** p<0.01, *** p<0.001.Standards errors are in parentheses. Significance at the 1%, 5% and 10% levels are denoted respectively by *, **, ***.

Annex Table 1.A.6. Distance to city of above 1 million inhabitants and outcomes in cities

	(1) Log years of schooling	(2) Completed secondary or higher education	(3) Has bank account	(4) Top wealth quintile	(5) Has electricity	(6) Piped water on plot	(7) Has mobile phone
Log population	0.0499**	0.0284***	0.0354***	0.0646***	0.0542***	0.0272***	0.0211***
	(0.0185)	(0.00699)	(0.00758)	(0.0128)	(0.0104)	(0.00675)	(0.00531)
Log distance to closest city with 1 million inhabitants	-0.0564**	-0.0242**	-0.0145	-0.0312**	-0.0163	-0.0189*	-0.0107
	(0.0178)	(0.00832)	(0.00803)	(0.00940)	(0.0126)	(0.00905)	(0.00674)
Log population within 10km	0.0443	0.0166	0.0122	0.0186	0.00465	0.0435***	0.0120
	(0.0274)	(0.00883)	(0.00842)	(0.0125)	(0.0119)	(0.0117)	(0.00752)
Log population within 50km	0.00396	-0.00633	0.00233	-0.00448	-0.00697	-0.0346*	-0.00442
	(0.0234)	(0.00932)	(0.00863)	(0.0127)	(0.0144)	(0.0161)	(0.00640)
Country-year fixed effects	YES	YES	YES	YES	YES	YES	YES
Constant	1.064**	0.223	-0.0554	-0.345	0.167	0.0555	0.620***
	(0.352)	(0.134)	(0.116)	(0.214)	(0.203)	(0.159)	(0.151)
N	2 440	2 441	2 737	3 022	3 022	3 022	3 022

Note Standards errors are in parentheses. Significance at the 1%, 5% and 10% levels are denoted respectively by *, **, ***.

Annex Table 1.A.7. City-size elasticity of wages

	Log hourly wage			
	(1)	(2)	(3)	(4)
Log city-population	0.025*	0.030**	0.124***	0.121***
	(0.013)	(0.013)	(0.025)	(0.029)
Log area			-0.108***	-0.098***
			(0.024)	(0.027)
Observations	10 127	8 919	10 127	8 919
Adjusted R-squared	0.810	0.819	0.811	0.819
Country-year fixed effects	X	X	X	X
Individual controls	X	X	X	X
Geographical controls		X		X
N	8 919	8 919	8 919	8 919

Note Individual controls include age, age-squared, gender, education, household size, hours worked and occupation. Geographical controls include dummies for vegetation zones and distance to the closest city of above 1 million inhabitants. Standard errors are clusters at the city level. Urban residents only. Standards errors are in parentheses. Significance at the 1%, 5% and 10% levels are denoted respectively by *, **, ***.

Annex Table 1.A.8. Wage differentials by city-size class

	Log hourly wage
City with 10k-50k inhabitants	0.209***
	(0.050)
City with 50k-250k inhabitants	0.191***
	(0.047)
City with 250k-1m inhabitants	0.147***
	(0.050)
City with 1 million+ inhabitants	0.287***
	(0.076)
Observations	16 359
Adjusted R-squared	0.786
Country X-Year fixed effects	X
Individual controls	X
Geographical controls	X
N	16 359

Note Individual controls include age, age-squared, gender, education, husehold size, hours worked and occupation. Geographical controls include dummies for vegetation zones and distance to the closest city above 1 million inhabitants. Rural inhabitants are the baseline category. Standards errors are in parentheses. Significance at the 1%, 5% and 10% levels are denoted respectively by *, **, ***.

2

City clusters, connectivity and economic integration in Africa

This chapter analyses the implications of the emergence of city clusters across Africa. It provides a new methodology to identify clusters of cities and shows that Africa has a large and growing number of such clusters. Subsequently, the chapter outlines the economic potential that clusters offer and discusses the main obstacles to closer economic integration that cities within clusters face. It highlights the need for better infrastructure and provides new metrics of the African road network. Applying a gravity model of trade, the chapter shows that even small border costs can lead to major reductions in trade flows between cross-border cities.

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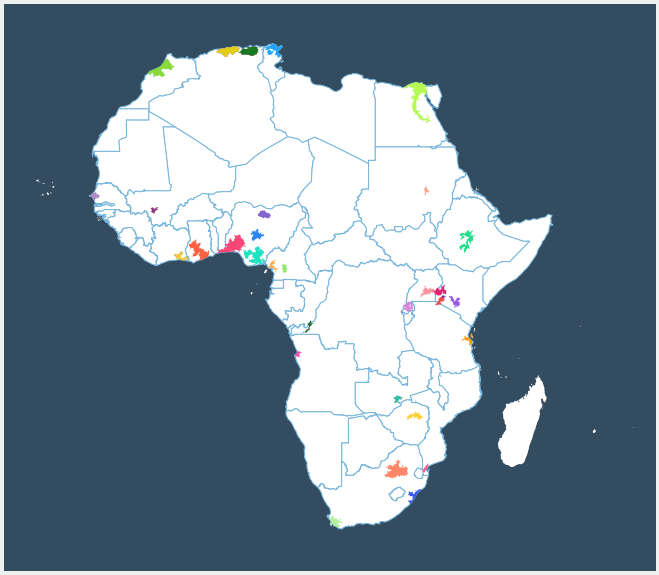
In Brief

City clusters as opportunities for economic development

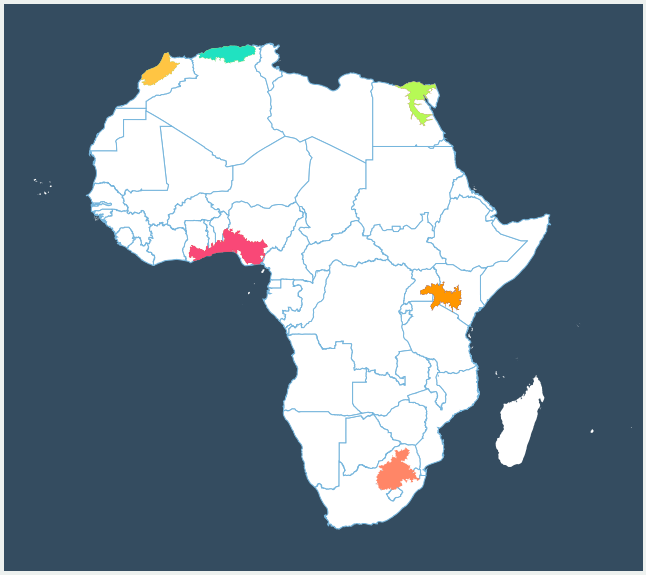
- Africa's rapid urbanisation process is changing the urban geography of the continent. Cities are emerging rapidly and small cities are turning into major urban centres. Since 1990, the number of cities in Africa has more than doubled, from 3 300 to 7 700. This has led to the development of clusters of cities, with cities located in close proximity to each other.
- City clusters provide a new opportunity for economic development in Africa. Many of the world's most successful cities are located in clusters of cities, because the clusters provide an economic ecosystem of customers, suppliers, investors and innovators that is much larger than that of any individual city. This particularly benefits intermediary cities that do not have the economic mass to attract major private investments.
- A novel methodology used in this report identifies 6 city clusters with more than 10 million urban inhabitants, and 31 clusters with more than 2.5 million urban inhabitants, based on the location of cities within the road network. Half the city clusters are located inland. This helps to document the changing and diversifying nature of urbanisation in Africa. Inland clusters are likely to develop different economic specialisations from coastal clusters. They offer an opportunity to diversify and connect African economies and to support more balanced territorial development.

Map 2.1. City clusters across Africa

2.5 million urban inhabitants and more



More than 10 million urban inhabitants



Note See Box 2.1 for the full definition of clusters.

Source OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

- While clusters of cities are emerging across Africa, the economic connections between cities in these clusters are still weak. This is partly because most clusters are still very young, and it takes time for economic links to develop. It is also, however, because inadequate infrastructure and barriers to cross-border trade prevent the economies of cities within clusters from developing closer links.
- Even limited border friction can have large effects on the potential for intercity trade. A gravity model of intercity trade based on the primary road network across Africa shows that cities are affected differently by border friction. Border friction is a major limitation on trade in major cities in central Africa that are close to international borders but far from other domestic markets.
- Cities will be major beneficiaries of the Africa Continental Free Trade Agreement (AfCFTA). A large share of African trade consists of resource exports to other regions worldwide, which generates only indirect benefits for urban economies. Strengthening intra-African trade is likely to benefit typical urban sectors, such as manufacturing and tradeable services. Moreover, Africa's cities are large consumer markets, and a reduction in tariffs and other trade barriers is likely to generate a significant consumer surplus, by lowering prices of consumption goods.
- Reducing trade barriers is necessary but not sufficient to strengthen intra-African trade between cities. Good transport links are a precondition for economic exchange between cities, and major investments are needed. Africa has the lowest density of roads of all global regions, both in road kilometres per area and road kilometres per capita.
- Improving intercity transport infrastructure is especially important within clusters of cities. Clusters can only generate positive economic effects, such as borrowed agglomeration economies and network economies, if the cities in the cluster are well connected with each other. Moreover, transport infrastructure provision within city clusters is one of the most effective ways to provide infrastructure. Because it can serve a large number of people and firms, the per capita costs of intercity infrastructure within a cluster tend to be lower than in other parts of a country, while the potential number of users is larger.
- The African road network varies from country to country. This chapter presents new measures for characterising the network across African countries, including the complexity, whether linear or circuitous, of the road network. Some countries, such as Egypt have developed a dense network of direct connections between cities, which is facilitated by its geography. Mountainous countries like Rwanda, by contrast, have only a few, indirect connections between cities.
- Efficient transport systems are multimodal, and road infrastructure alone will not meet the transport needs of the emerging city clusters. African countries need to invest in rail transport to connect cities with each other. As China's experience shows, such investments can have high returns, even at low income levels.

Linking cities to each other becomes increasingly important

Cities are hubs for the exchanges of goods, capital and knowledge. Their economies benefit from the scale that comes with increasing city size, and larger cities tend to be more productive than smaller cities (see Chapter 1). Even large cities, however, do not have the scale in all dimensions that is required to perform at the highest levels. It is thus not surprising that many of the world's most successful cities are part of a cluster of cities. Such clusters can give businesses access to an economic ecosystem of customers, suppliers, investors and innovators much larger than those of a single city. Being located in a cluster can be especially valuable for midsized cities that lack the economic mass to attract major industries.

Africa's unprecedented urbanisation is changing the urban geography of the continent. Not only is the number of urban residents increasing, but the growing number of cities of all sizes has led to the emergence of clusters of cities. In the past, cities in most parts of

Africa were too small and too far from each other to develop intense economic linkages. However, as they have grown, both in size and number, an increasing number of cities are located close to other major cities (OECD/SWAC, 2020[3]). These emerging clusters offer an opportunity to build interconnected economies at a size that can ensure global reach.

Currently, the economic links between cities in Africa are weaker than they could be, even where cities form clusters. Partly, this is because many city clusters have only emerged recently, and because it takes time for their economies to adjust. However, it is also because barriers to economic integration, such as insufficient infrastructure and borders, prevent closer economic connections between cities. Some of the most important emerging city clusters in Africa span multiple countries. Economic connections between them is still impeded by barriers to the free movement of people, goods, capital and ideas. The AfCFTA should facilitate the emergence of economic links between cities.

This chapter discusses the opportunities arising from linking African cities that are close to each other. First, the chapter shows how urbanisation creates clusters of cities, which are common in other parts of the world, but which are a relatively recent phenomenon in most of Africa. These clusters come in a variety of different sizes and shapes, sometimes consisting of just a few intermediary cities within a few dozen kilometres of each other. In other cases, they may span hundreds of kilometres and contain several large and many more small and intermediary cities (e.g. the Ibadan-Lagos-Accra-Abidjan corridor). Second, the chapter shows the trade costs to cities from borders as predicted by a gravity model of intercity trade. Subsequently, it discusses the possibilities for a better integration of cities that arise from AfCFTA. Third, the chapter provides an analysis of complementary policies that are required to link cities with each other, focusing on the role of infrastructure. While city clusters can be identified based on the proximity of cities to each other, proximity is no guarantee that cities will develop economic linkages. Public policies in several policy fields are needed to create such connections, with investments in infrastructure being particularly critical.

City clusters are the backbone of many successful economies

Connecting cities across countries is important for their economies as well as for regional economic integration. Close economic connections with cities in the same country are, however, equally important. Chapter 1 showed that larger cities in Africa perform better than smaller cities and that rural areas benefit from proximity to cities, along a wide range of outcomes. This pattern is evident all over the world, thanks to such factors as: better matches between employers and employees in larger labour markets; greater specialisation of firms in larger cities; a faster spread of knowledge; more efficient delivery of public services; and better utilisation of infrastructure (OECD, 2015[4]).

Not every city can be a major metropolis. However, even intermediary cities can perform the functions and reap the benefits of larger cities by generating so-called borrowed agglomeration economies (Meijers and Burger, 2015[5]) and network economies. This increases their productivity and makes them attractive destinations for businesses. For example, Frankfurt (Germany) is the 495th-largest city in the world, with less than 1 million inhabitants (Florczyk et al., 2020[6]). Nevertheless, it is one of the most important global financial centres, has the world's 15th busiest airport and the third-largest trade fair in the world. None of these economic assets would be viable if Frankfurt were not closely integrated into a polycentric cluster of cities stretching along the Rhine River from Switzerland through western Germany and eastern France to the Netherlands. Consisting mainly of intermediary cities of less than 1 million inhabitants, the region is one of Europe's wealthiest, most populous and economically most important. The interconnected economy of the region allows many intermediary cities in the region to host high value-added economic activities typically found only in larger cities.

Another asset of clusters of cities is that they do not suffer as much from the negative effects of high population levels as large cities do. Land tends to be less scarce within city clusters, for example, because they cover a larger area than a single city of the same size. Even if city clusters cannot replicate all the economic advantages of very large cities, they may still be as productive, because they suffer fewer disadvantages, such as high land prices and congestion.

Clusters of cities exist in various sizes and shapes. Prominent examples of large clusters include the

North-eastern seaboard of the United States, including Boston, New York, Philadelphia and Washington, D.C. The Pearl River Delta in China is a young, but very large, cluster of cities, including Guangzhou, Foshan, Shenzhen and Dongguan. Thanks to China's rapid urbanisation, the region is being transformed from a polycentric system of cities into the largest urban agglomeration in the world, with close to 50 million inhabitants. Small city clusters can also, however, have a major importance for their countries. The two main cities of the Øresund cluster, Copenhagen (Denmark) and Malmö (Sweden) have a combined population of less than 1 million inhabitants. Nevertheless, the cluster is vital for the Danish and Swedish economy. About 20 000 commuters cross the Øresund Bridge daily to work in the city on the opposite site of the Øresund Strait, and the cities and their surrounding region contribute 27% to the combined GDP of Denmark and Sweden (OECD, 2012[7]).

Many of the benefits of close economic integration of cities contribute to economic development because they increase overall economic activity, rather than simply redistributing it from one city to another. The fact that Frankfurt has a major international airport, far from harming cities nearby, offers them exceptional global connectivity, something not normally available to an intermediary city. Likewise, the productivity of cities in the Pearl River Delta is enhanced by the proximity of powerful industrial centres, giving firms access to an unmatched network of suppliers and customers.

Clusters of cities vary in size, shape and function

The morphology of city clusters and the functional connections of cities within these clusters can take many forms. At the local level, cities that are just a few kilometres away from each other often form functional urban areas. Although cities within a functional urban area are morphologically still recognisable as independent cities, they function economically as a single city, for example because they have an integrated local labour market. At larger scales, cities create clusters of various sizes, shapes and scales. A city cluster can consist of a few intermediary cities that are located relatively close to each other or may be a megalopolitan area that stretches over hundreds of kilometres and includes multiple cities with several million inhabitants. It can be monocentric, with one major central city and many surrounding smaller cities, or polycentric, containing several cities of similar size. The cities in the cluster might form a corridor along the coast, along a major road or along an inland waterway. They can be distributed regularly according to historic trading networks, or they can be scattered, without any clear pattern.

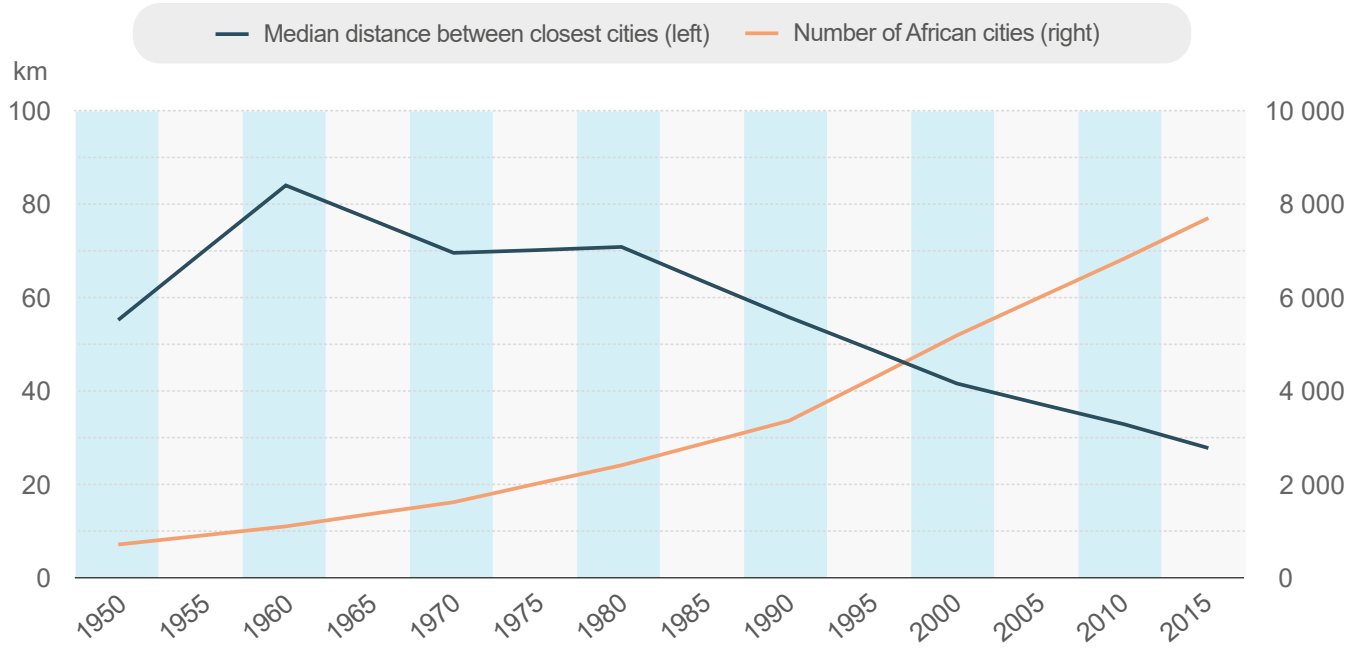
The economies of clusters of cities are equally diverse. Cities in a cluster may rely on the same industry, may specialise in different, but related activities, or have economies fundamentally distinct from one another. Often, clusters of cities emerged due to a concentration of industries that are now obsolete. This can create difficulties, because old urban forms are not ideal for newly emerging economic structures. However, in many cases, city clusters are dynamic incubators for new economic activities and transition more easily to new industries than other areas.

The diversity in terminology describing clusters of cities is almost as great as the diversity in the characteristics of city clusters. The terms city clusters, megalopolitan areas, conurbations, urban corridors, systems of cities and megaregions are all used to describe cities in close proximity. Some of these terms have specific connotations (e.g. *conurbation* refers to cities that have nearly merged into a single functional urban area, whereas an *urban corridor* refers to a system of cities in a linear orientation). None has a widely accepted formal definition, and it is doubtful whether such a definition would be effective. Cities have so many overlapping relationships in many dimensions that it is difficult to make sharp distinctions between clusters.

Urbanisation leads to the emergence of city clusters across Africa

Historically, clusters of cities in Africa have been rare. African cities were mostly small and located far from each other. In 1960, the distance between a city and its closest neighbour was on average 113 kilometres. However, the rapid population growth and associated urbanisation in the last 50 years has drastically reduced distances between cities. The number of cities increased from just above 1 000 in 1960 to more than 7 700 by 2015, while the average distance between a city and its closest neighbour fell to 36 kilometres. A consequence of the rapid urbanisation is the emergence of clusters of cities in many parts of Africa. Although many are still in their infancy, almost all are growing rapidly in population. Some of the larger clusters will turn into some of the world's most populous clusters in the next two decades, if current urbanisation trends continue.

Figure 2.1. Number of African cities and the distance between them



Source OECD/SWAC calculations based on OECD/SWAC (2018[2]).

To identify clusters of cities in Africa, two definitions are applied that aim to distinguish clusters based on size and density. Some clusters are dense, with cities located close to each other, but they potentially do not contain many cities. Other clusters contain a large number of cities but are potentially not as dense, with the cities located at somewhat larger distances from each other. A few clusters are both dense and large. They contain many cities at close distances.

This type of cluster, known as a *compact city cluster*, is defined as a region where at least 2.5 million urban residents live in cities of more than 30 000 inhabitants, within 100 kilometres of each other by road. An *expansive city cluster* is defined as a region where at least 10 million urban residents live in cities with more than 30 000 inhabitants within a distance of 250 kilometres of each other. An expansive city cluster can include one or more compact clusters. A detailed definition is provided in Box 2.1.

Box 2.1. Identifying clusters of cities

This chapter identifies clusters of cities based on their proximity to each other and their combined population size. To show the diversity of city clusters, two definitions are used – one to identify small clusters of cities in close proximity to each other and one to identify large clusters of cities at potentially larger distances from each other. A city might belong to either a small or a large cluster, to both or to neither. However, it cannot belong to multiple small or multiple large clusters.

Definition of city clusters

Compact city clusters

Compact city clusters consist of cities with more than 30 000 inhabitants that are within 100 kilometres by road with a total urban population of more than 2.5 million inhabitants (including their own population). Cities that meet this criterion within 100 kilometres of each other by road are assigned to the same cluster. Cities that do not meet the criteria above, but which are located within 60 minutes' travel of a city that does, are assigned to the same cluster.

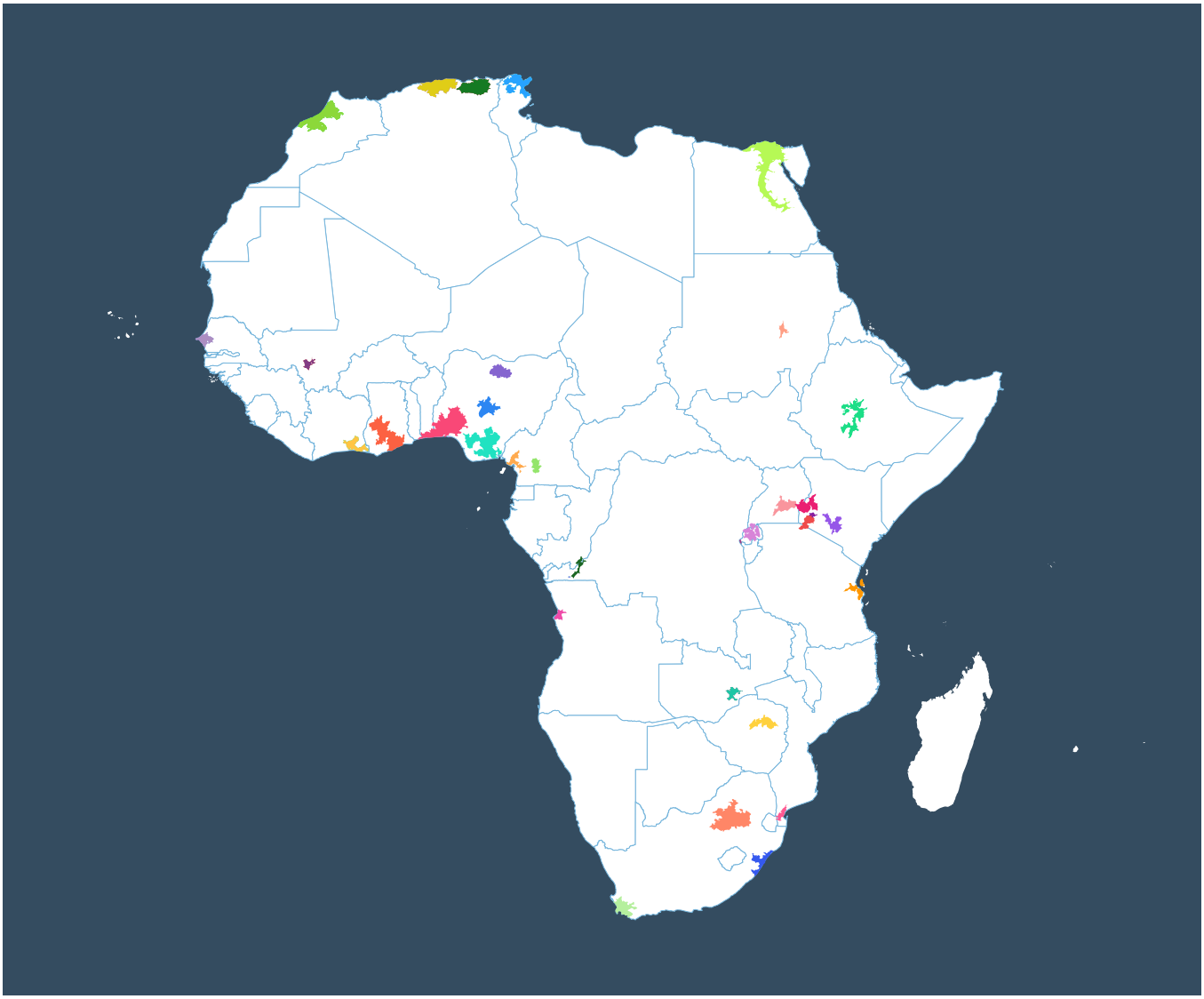
Expansive city clusters

Expansive city clusters consist of cities with more than 30 000 inhabitants that are within 250 kilometres by road with a total urban population of more than 10 million inhabitants (including their own population). Cities that meet this criterion within 250 kilometres of each other by road are assigned to the same cluster. Cities that do not meet the criteria above that are located within 60 minutes' travel of a city that does are assigned to the same cluster.

Across Africa, 31 compact and 6 expansive city clusters exist (Map 2.2 and Map 2.3). By far the largest compact cluster of cities can be found along the Nile and within its delta in Egypt. It is one of the rare examples of a compact city cluster that contains a very large population. With 82 million urban residents, it includes more than 80% of Egypt's population. Besides Cairo, it includes six other cities with more than 1 million inhabitants. The second-largest compact city cluster is a cross-border cluster that contains cities in Nigeria and Benin, in particular Lagos, Ibadan and Cotonou. It is home to 33 million urban residents, even though it has no other cities with more than 1 million inhabitants beyond those three. Another cluster of Nigerian cities around Onitsha, Uyo and Port Harcourt is the third-largest compact city, with 23 million urban inhabitants. Other notable compact city clusters are located around Johannesburg, Kisumu, Addis Ababa and Kinshasa, all of which have at least 9 million urban residents.

Map 2.2. Compact city clusters

City clusters with more than 2.5 million urban residents within 100 kilometres' distance by road

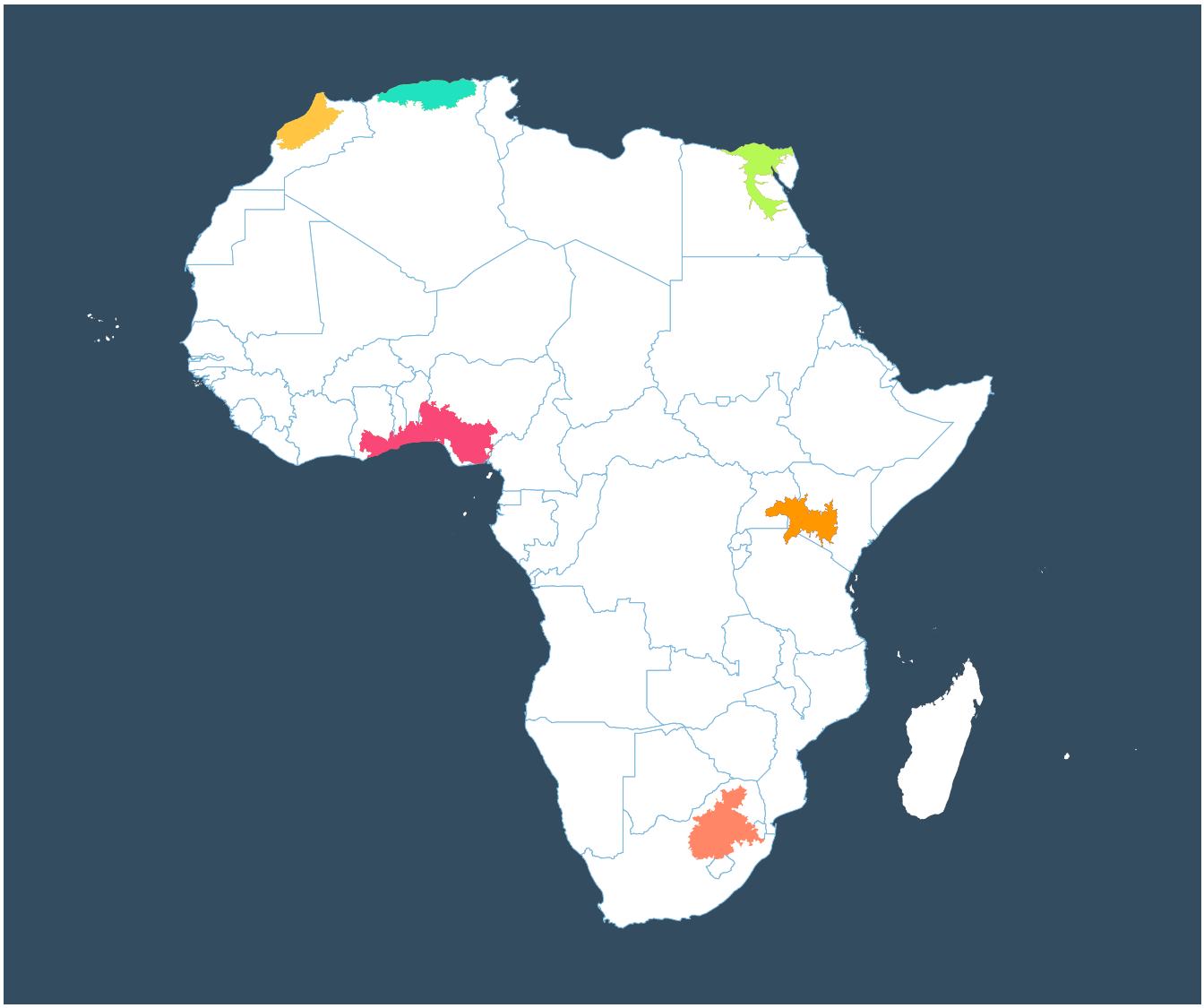


Note See Box 2.1 for details on the definition of city clusters.

Source OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

Map 2.3. Expansive city clusters

City clusters with more than 10 million urban residents within 250 kilometres' travel distance by road



Note See Box 2.1 for details on the definition of city clusters.

Source OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

The largest expansive city cluster covers West African cities from Kumasi (Ghana) in the west, to Kano (Nigeria) in the north and Port Harcourt (Nigeria) in the east form a single cluster of cities, with an urban population of 83 million inhabitants and 15 cities with more than 1 million inhabitants. Within this expansive cluster, several compact city clusters can be found. This shows the importance of considering different scales when thinking about city clusters. In contrast, the population of the city cluster around Cairo remains virtually unchanged, no matter whether the definition for compact or expansive city clusters is used. Under both definitions, most Egyptian cities are included in the cluster, but no cities in other countries are close enough to be part of the cluster.

Another major expansive city cluster, the Nairobi-Kisumu-Kampala cluster, can be found in East Africa. It has 36 million urban residents and six cities with more than 1 million inhabitants. In contrast, the three next largest clusters in South Africa, Morocco and Algeria all have less than half as many inhabitants. A complete list of all city clusters shown in Map 2.2 and Map 2.3 can be found in Annex 2.A.

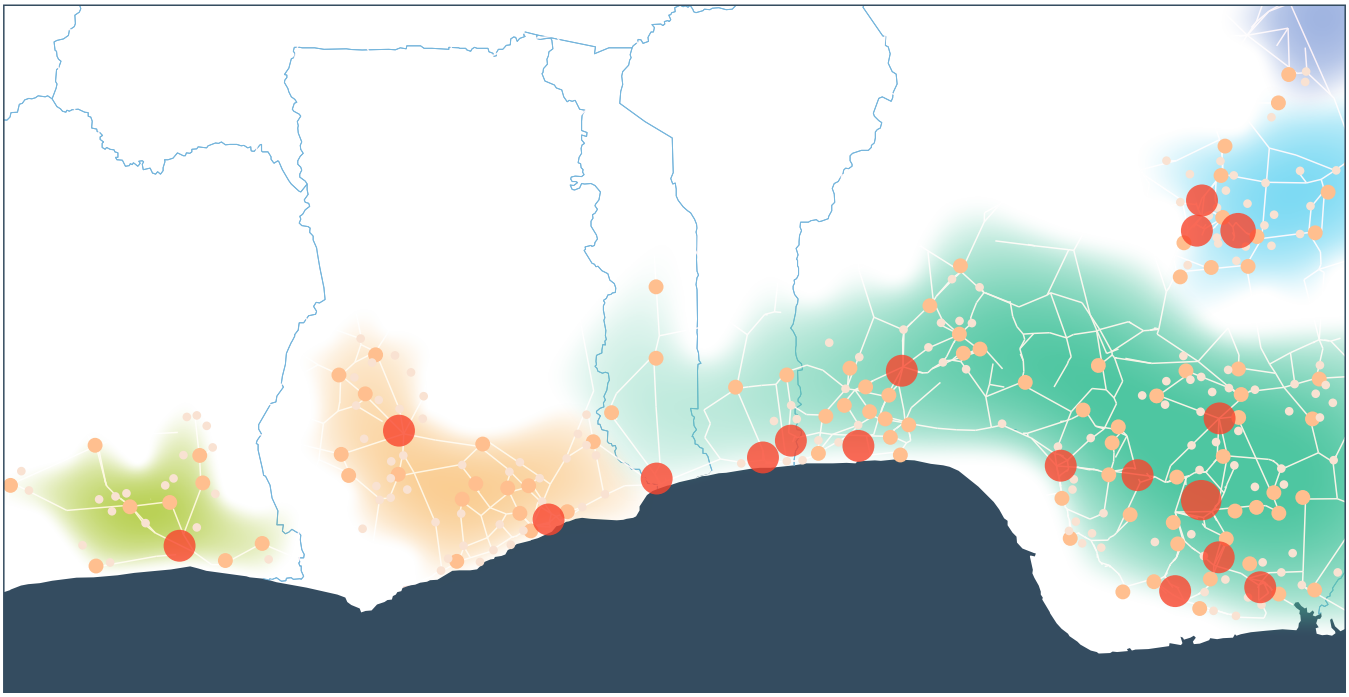
Many of the clusters shown below are still rapidly expanding. If the population of West African cities continues to grow by roughly 50% a decade (the pace in recent decades), the Lagos-Accra-Kano cluster will expand to include Abidjan (Côte d'Ivoire) and will include more than 115 million urban residents. In the same period, another nine compact city clusters are likely to emerge, bringing the total in Africa to 39.

It is important to note that city clusters have been identified based on travel distance, not on functional relationships. Many of these clusters are still emerging, and transport connections between cities tend to be weak. It is likely that clusters do not yet have the type of economic, cultural and social ties found in the most successful city clusters across the globe. Whether such ties emerge will depend on a range of public policies at all levels of government, designed to reinforce intercity links.

Map 2.2 and Map 2.3 document the changing nature of urbanisation in Africa. Half of all clusters are located inland. These are likely to develop economic specialisations different from coastal clusters, for example by focusing on domestic and continental markets instead of global markets, which are more difficult to reach. The growth of inland clusters offers opportunities to diversify and integrate African economies and encourage a more balanced territorial development.

Map 2.4. Compact city clusters in West Africa

City clusters with more than 2.5 million urban residents within 100 kilometres' travel by road



Note See Box 2.1 for details on the definition of city clusters.

Source OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

Reducing border barriers will facilitate the development of urban economies

Some of the most important clusters, in particular in East Africa and West Africa, are cross-border clusters that span two or more countries. The economic development of these clusters is affected by trade barriers. However, even cities not directly on a border are subject to economic costs from barriers to intra-African trade.

Trade across African borders involves a wide range of monetary and non-monetary costs, including tariffs, fees and sometimes bribes. Exporters and importers are required to complete complex paperwork and long and unpredictable waiting times at many borders. The World Bank estimates that across sub-Saharan Africa, exporting a shipment worth USD 50 000 requires average border compliance times of 97 hours.[1] Obtaining and processing the necessary paperwork takes another 72 hours. The costs of clearing border formalities, for example for fees, insurance and bribes (but excluding tariffs), are on average USD 777. Compliance times and costs for imports are even higher than for exports (World Bank, 2019[8]).

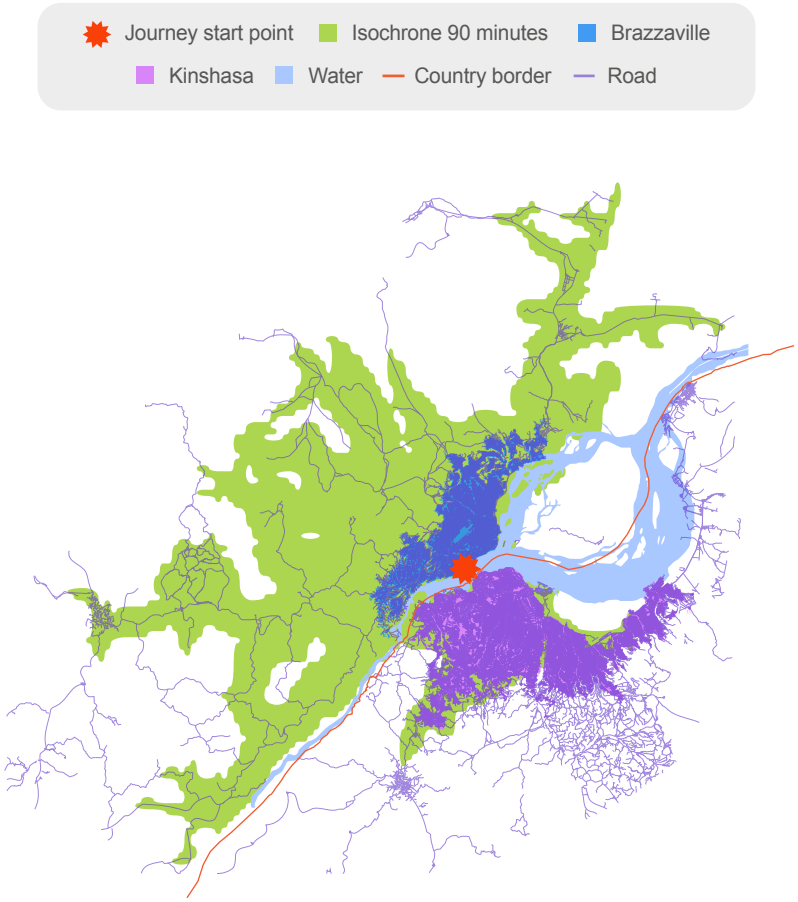
Quantifying the impact of such trade barriers and identifying the most important ones is always difficult, but it is particularly challenging in the African context. A large share of intra-African trade is informal and is not reflected in official statistics. A quantitative study of trade between Benin and Nigeria, for example, found that unregistered informal imports from Nigeria into Benin were roughly equivalent to the registered imports, while unregistered exports from Benin to Nigeria were five times higher than registered exports (Bensassi, Jarreau and Mitaritonna, 2018[9]). Because there is little overlap between formally and informally traded goods, official statistics underestimate not only the magnitude of intra-African trade but the diversity of the goods traded. Shifting informal trade to the formal economy once trade barriers are reduced could yield additional benefits.[2]

In addition to the monetary and non-monetary costs involved in border crossings, the emergence of a pan-African single market is complicated by a wide range of other measures. They include barriers to cross-border investments and capital flows, as well as several dimensions of regulatory policy (World Bank, 2020[10]). While tariffs are often perceived as the key barriers to trade, many of these so-called behind-the-border measures are essential to enable free trade across countries and facilitate the emergence of an integrated market (de Melo and Tsikata, 2014[11]).

Border friction affects cities at different scales. At the local level, they divide border cities and prevent a single functional urban area from emerging. City sections separated by a border function as a smaller city and consequently generate fewer agglomeration economies than the combined city would generate. In many border cities, it is hard or even impossible for residents to secure jobs across the border and for small-scale traders to sell their goods.

The Republic of Congo (COG) and the Democratic Republic of Congo (DRC) offer a striking illustration of the economic impact of borders. The border between them separates two of the largest border cities in the world, Brazzaville (COG), with 1.6 million inhabitants, and Kinshasa, with 7.3 million inhabitants. Although the two cities are separated by the Congo River, almost all Kinshasa would be accessible from the centre of Brazzaville within 90 minutes travel, in the case of no border delays. Without friction at the border and other barriers to trade between the two countries, the economies of the two cities would probably be closely integrated, especially as the languages spoken on both sides of the border overlap. Removing border friction would be even more important than it is today if plans to build a bridge between the two cities by 2028 come to fruition. This investment, in combination with policies to facilitate mobility and trade between the two countries, would allow the two cities to merge into a single urban area. By the time of the planned opening of the bridge, the combined urban area of Kinshasa and Brazzaville would be the third-largest city in Africa, with well over 10 million inhabitants.

Map 2.5. Areas reachable within 90 minutes from Brazzaville (COG)



Note Dark squares indicate areas reachable from central Brazzaville within 90 minutes. The urban area of Brazzaville and Kinshasa is shown in green. The border between the Republic of Congo and the DRC is shown in red. The isochrone is an area accessible within a certain time threshold.

Source OECD/SWAC calculations based on Nelson et al. (2019[12]) and OECD/SWAC (2018[2]).

At larger scales, borders divide clusters of cities. They reduce the market potential of cities and prevent cities from developing the economic links that often emerge between well-connected cities in close proximity. They thus prevent the emergence of so-called borrowed agglomeration economies and network economies that would normally contribute to higher productivity levels in well-connected city clusters (see below).

Even small border costs can cause major reductions in intercity trade

The effects of border friction on trade can be simulated through a gravity model. In such a model, the volume of trade between two destinations is assumed to depend on their economic activity or population size and the travel time between them. Both of these factors have been shown to be strong predictor of trade volumes. To estimate the effects of border friction, a gravity model of trade for African cities has been developed that predicts trade flows between all city-pairs within Africa[3]. To simulate the effect of border friction, the model introduces a necessary delay when crossing a border, of up to 1 000 minutes, and models the resulting decline in intercity trade, compared to a situation where borders can be crossed without any impediments.

While the model incorporates border friction only as time costs, these costs can represent equivalent monetary, regulatory or any other type of costs that firms face in interacting across borders. The modelled time costs are necessarily approximate and cannot realistically reflect the diversity of situations across Africa. The friction businesses face depends on the country, but also on their size and sector.

Map 2.6 shows the African road network without and with border delays. The length of each road segment corresponds to the time required to travel along the road, rather than the distance of the road.[4] Thus, the map distorts the shape of the continent and represents the time it takes to travel between pairs of cities. Roads are displayed in different colours depending on the urban population reachable within a travel time of ten hours. Roads crossing a border are shown in light grey. In a scenario without border delays (left-hand figure), cities in different countries are located close to each other, reflecting the frictionless travel from one country to another. In contrast, introducing border delays (right-hand figure) can be thought of as increasing the distance between countries. As a result, countries become insular, and travel times within a country are much shorter than travel times to neighbouring countries, thus reflecting the difficulty of cross-border travel and trade.

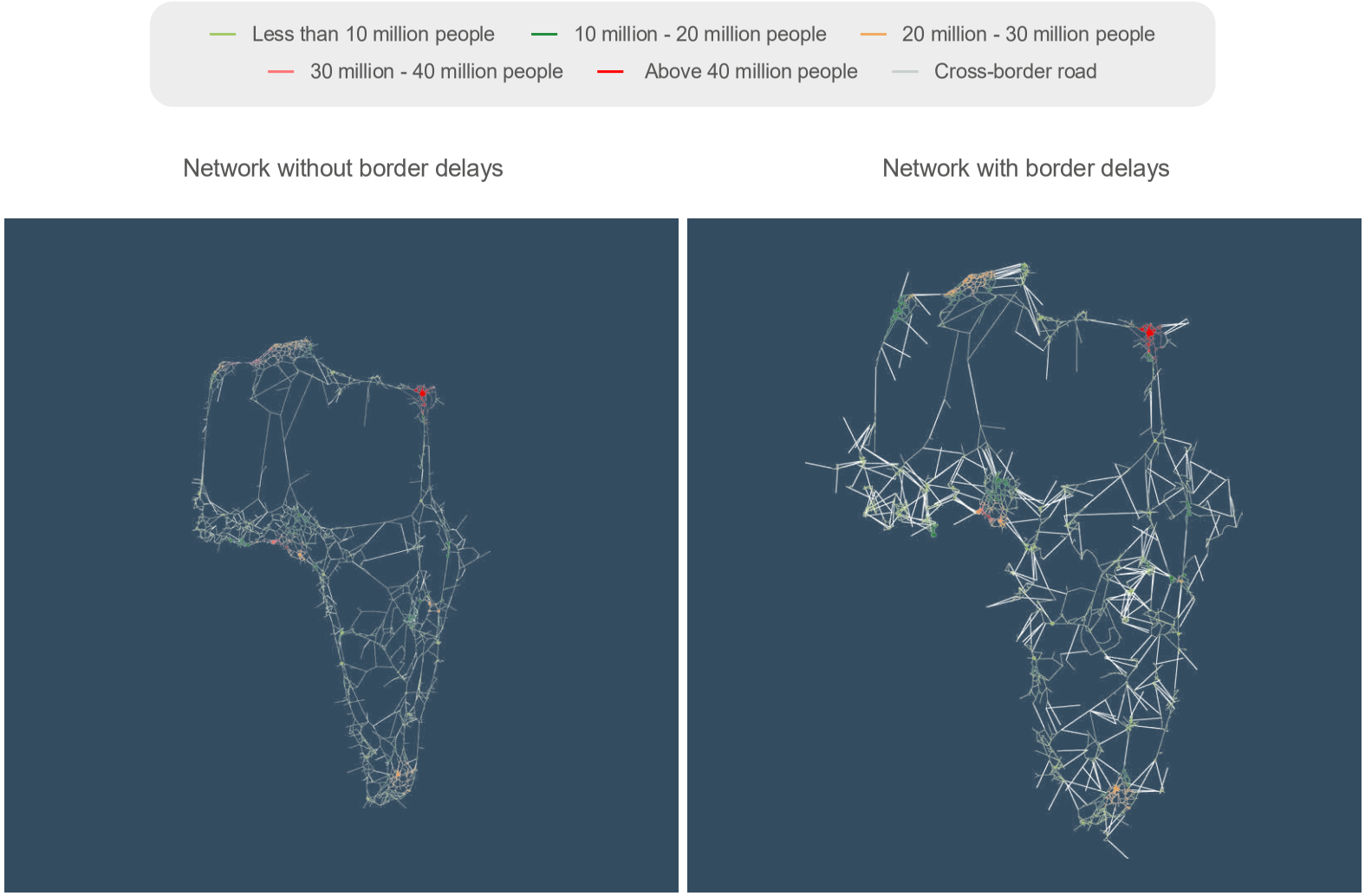
Box 2.2. Analysing the entire primary road network in Africa

Computational advances have made it possible to analyse the road network connecting the majority of African cities of more than 30 000 inhabitants (and all cities of more than 100 000 inhabitants). Road data on major roads (e.g. motorways, trunk roads, primary roads) have been extracted from OpenStreetMap (although the OpenStreetMap data still contains areas with imperfect coverage). An algorithm has been developed to assign cities to the road network and to fill in likely road segments that were not available in the OpenStreetMap.

Each city of more than 100 000 inhabitants is represented by a node in the network that is connected by edges corresponding to major roads. Each urban agglomeration of more than 100 000 inhabitants is assigned to its nearest road coordinates. Then, urban agglomerations of less than 100 000 inhabitants are assigned to its closest road co-ordinates if the distance between a city and a transport node is less than 10km. To preserve the geographical shape of the network, road intersections outside a city are considered to be nodes with no inhabitants. The resulting simplified network preserves the structure of the original road network, by representing each road by a unique edge containing information on the length and travel speed of the original road segment.

Once road data is transformed into a network representation of this kind, it is possible to apply network analysis methods to identify characteristics of the network. The processed network representation of Africa's cities and their connecting roads will be shared with researchers upon request. To request access to the dataset, contact africapolis@oecd.org. Further details on the methodology, and additional analysis, are available in Prieto Curiel et al. (2021[13]).

Map 2.6. The shape of Africa's road network with length symbolising travel time and colours reflecting market potential, without and with border delays



Note The images show a network representation of Africa's road network with roads' colours reflecting different market potential. Market potential is calculated by the size of the urban population reachable within 10 hours travel time. Roads crossing a border are shown in light grey. Roads are shown as linear connections between cities, whose lengths correspond to the required travel time. Correspondingly, road locations are distorted, and the shape of the continent is approximate. The right-hand figure adds a border delay of 1 000 minutes to each road crossing a border. As a result, national road networks tend to be isolated from each other and distances between countries are large. In contrast, no border delay is added to the network shown in the left-hand figure. Countries are much closer to each other and their road networks are better linked.

Source (Prieto Curiel et al., 2021[13]); OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

Even limited border delays lead to substantial reductions in predicted intercity trade volumes, but the effects vary strongly depending on the region (Figure 2.2). The main determinant in modelling the impact of border delays on cities is their location. If cities are close to major cities located across a border, but are far from other domestic cities, the effect of border costs is predicted to be high. In contrast, where cities are close to major cities within their own country, and far from cities located across a border, predicted border costs are low. To account for differences in infrastructure, the model uses travel times between cities derived from actual road links rather than relying only on geographical distance.

Border friction is particularly important for cities in Central African countries. Not only does the region include two landlocked countries, it has many major cities located close to borders and far from other major domestic urban centres. They include Bangui, Brazzaville, N'Djamena and Kinshasa, the respective capitals and largest cities of the Central African Republic, the Republic of Congo, Chad and the Democratic Republic of Congo. All four cities are directly on borders, and constitute some of the largest border cities in the world. The natural trading partners of these cities would be across the border in the absence of any barriers to international trade. Border costs, however, have a significant impact on the predicted trade in these cities.

The average effect of border costs on East African countries is not as substantial as for Central African countries, but it is still high. Several countries, including Kenya, Rwanda, Mozambique and Uganda, are home to cross-border city clusters. Further north is Ethiopia, Africa's second most populous country. Its neighbours, Sudan, Eritrea, Djibouti and Somalia, have major urban centres located close to major cities in Ethiopia. In the absence of border friction, these cities would be natural trading partners.

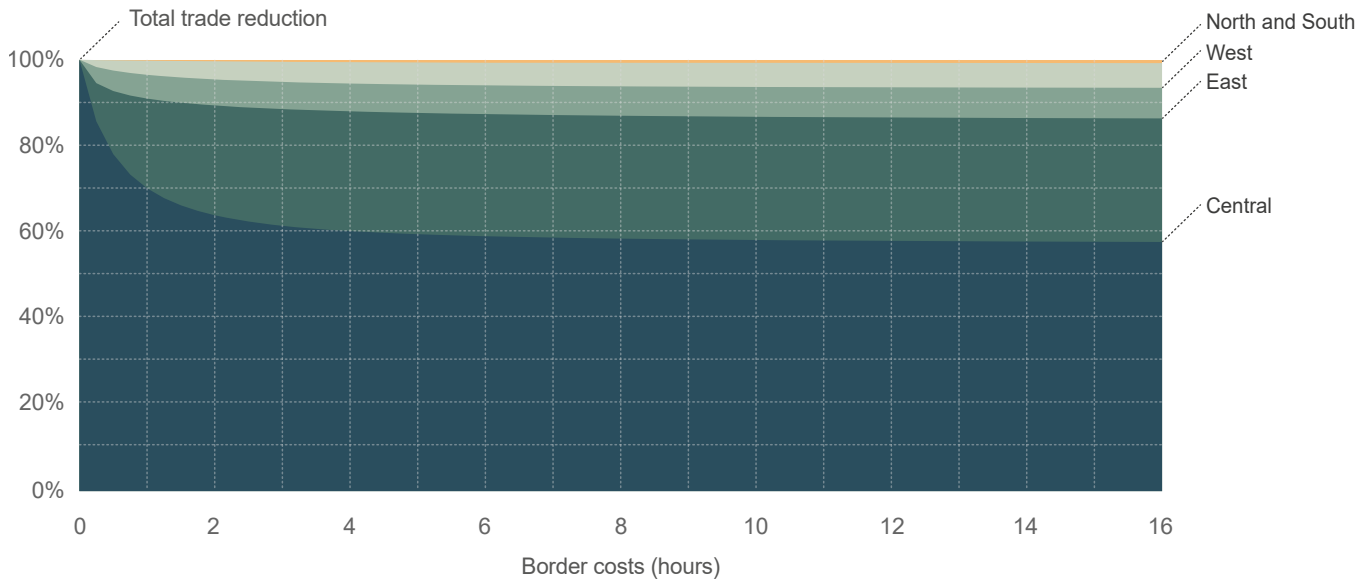
West Africa presents an uneven picture, because the region is dominated by Nigeria, which is significantly larger than its neighbours. The population of Nigeria, Africa's most populous country, is more than six times greater than that of Ghana, the second-largest country in West Africa. Given the size of Nigeria, most of its predicted intercity trade is within its own borders, and border costs are estimated to reduce total intercity trade volumes in the country by only a few percentage points. By contrast, for the smaller surrounding countries, Nigeria is an important potential market. Friction at the border greatly reduces their intercity trade potential. The impact of border costs for those countries is generally predicted to be high.

The situation in Southern Africa is somewhat comparable to West Africa's, in the sense that the region is dominated by a single large country (South Africa), for which border costs are small because most of its intercity trade is predicted to be domestic. Border costs for other countries in Southern Africa are significantly higher, and Eswatini and Lesotho in particular face high border costs. However, their size is so small that this barely affects the regional average. On average, border costs in Southern Africa create only small reductions in intercity trade.

By comparison with most other regions, modelled border costs are comparatively low in North Africa. Due to the geography of the region, most cities are located within domestic city clusters that are relatively far from cities in neighbouring countries. The model thus predicts low levels of cross-border intercity trade, even in the absence of any border costs. As the predicted cross-border trade would in any case be minor, the effects of border costs on predicted trade volumes are small.

The estimated reductions in intercity trade by region are shown in Figure 2.2. While the estimates are informative about general patterns, they should not be interpreted as literal predictions. They depend on the model specifications and on the parameters selected within the model. Actual trade patterns are likely to diverge from those that are modelled, but as systematic information about African intercity trade is scarce, the degree that this might diverge is impossible to verify.

Figure 2.2. Estimated intercity trade reductions for African cities due to border costs



Note Cost of international borders in hours (horizontal axis) against the ratios between the total trade and the trade with no border costs (vertical axis). A detailed description of the methodology used to calculate border costs can be found in Prieto Curiel et al. (2021[13])

Source OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

The AfCFTA creates a basis for regional economic integration

The ratification of the African Continental Free Trade Agreement (AfCFTA) will have profound effects on cities across Africa. Across the globe, cities are transport hubs and centres of international trade in goods and services. As noted in Chapter 1, African cities play this role to a lesser degree than might be expected given their economic advantages over rural areas. The AfCFTA offers cities an opportunity to develop their economies by strengthening international economic links with each other and at the same time to become the pillars of regional integration.

The agreement creating the AfCFTA entered into force on 30 May 2019. Currently, 54 of 55 African Union (AU) member states have signed the agreement, 30 have ratified it, and dismantling the tariffs began in January 2021. The agreement removes tariffs on 90% of regionally traded goods within AfCFTA by 2025, with a reduction of tariffs on an additional 7% of goods over 10 to 13 years in the majority of countries. The modality of trade in services will be the subject of negotiations in 2022 to expand the coverage of the agreement (Tralac, 2020[14]; AU & UNECA, 2020[15]). In addition to lowering tariffs, the AfCFTA agreement contains an annex on non-tariff barriers (NTBs) such as customs and administrative delays, barriers related to technical and sanitary standards, and non-tariff charges on imports, which will have an even greater impact than lowering tariffs (Abrego et al., 2019[16]; AU & UNECA, 2020[15]).

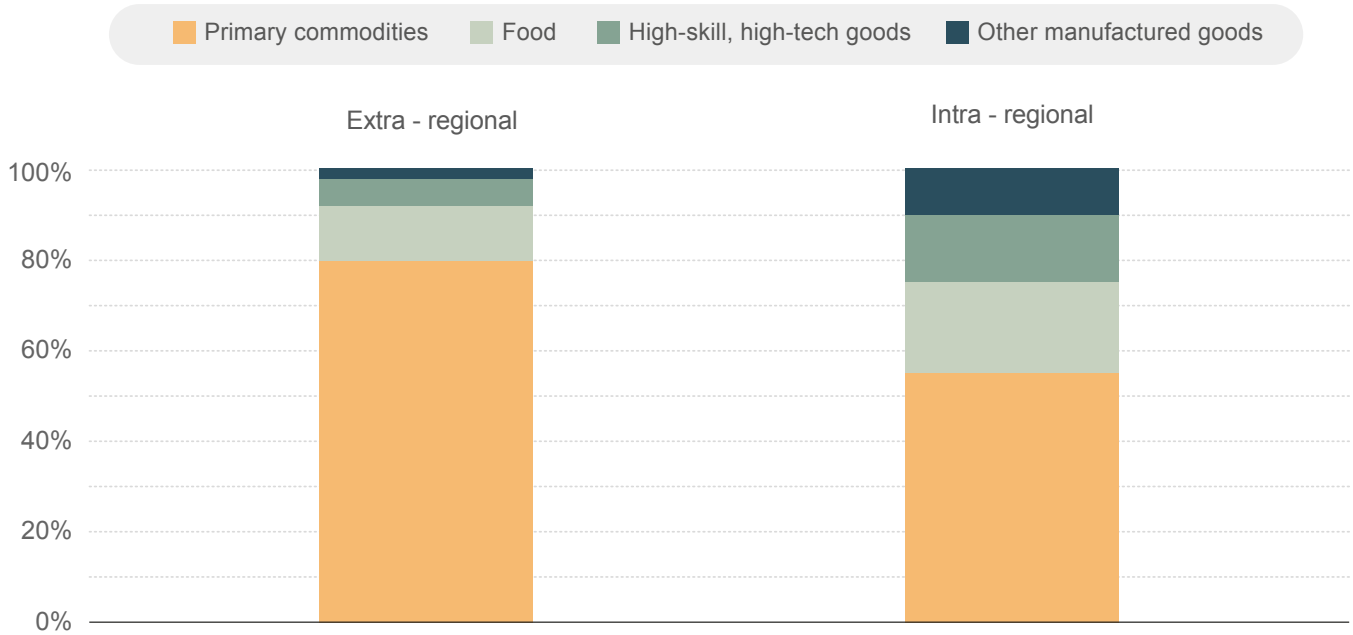
The AfCFTA will bring together a USD 2.5 trillion market with a population of 1.35 billion on a continent that has been fragmented by boundaries, has faced high barriers to internal connectivity, and has a concentration of exports in commodities sectors serving demand outside the region (AU & UNECA, 2020[15]; UNECA, 2022[17]; UNDESA, 2018[18]).

Urban economies will be strengthened by continental economic integration

African cities have been affected by the continent's historical trade structure. Job-poor natural resources exports have crowded out urban jobs, and trade barriers have stymied the competitiveness of exports produced in Africa's cities (Gollin, Jedwab and Vollrath, 2015[19]; Graff, 2018[20]).

However, the AfCFTA can help shift the fortunes of Africa's urban-based exporters. Compared to exports to other continents, which are dominated by commodities, intra-African exports have a larger share of goods and services with value added in cities, such as high-skill, high-tech goods, food and manufactured goods in general (Figure 2.3). Stronger intra-African trade is thus likely to mean a bigger role for cities in the production of traded goods.

Figure 2.3. Composition of exports from African countries to markets outside and within Africa

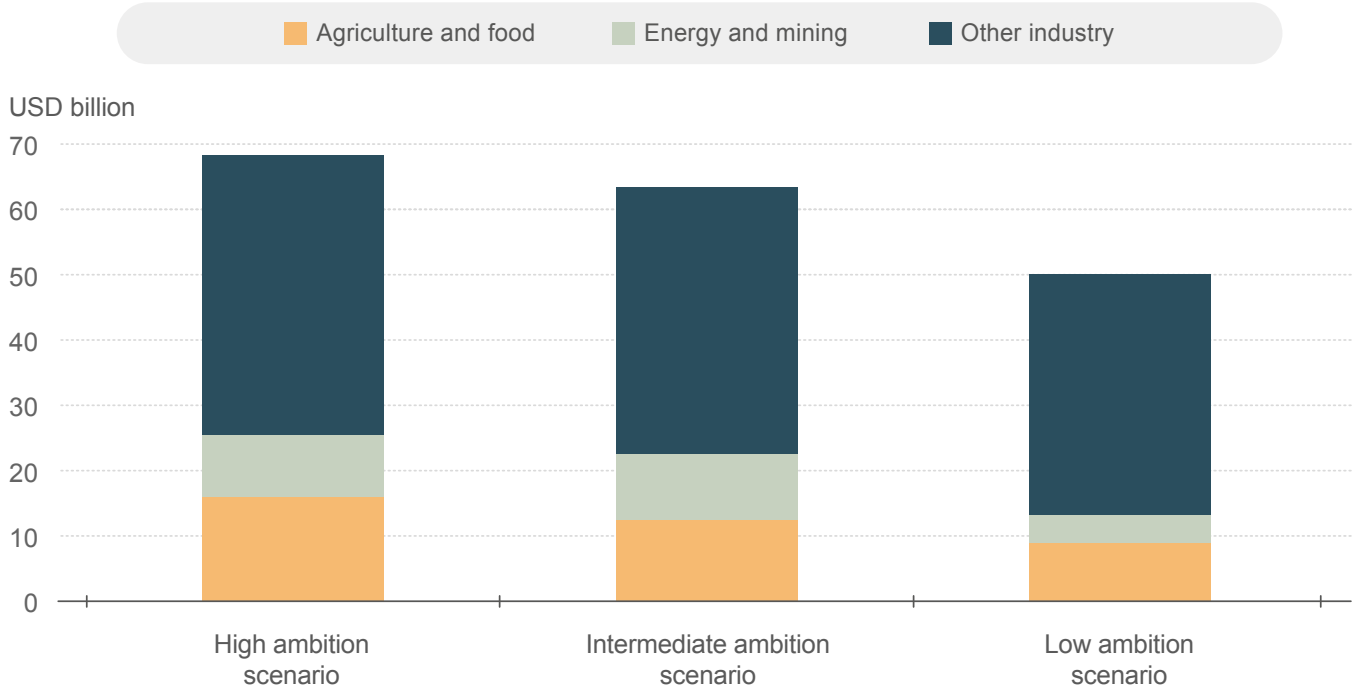


Note Percentage of total African exports

Source (UNCTAD[21]); year of data: 2015-19 average.

The United Nations Economic Commission for Africa (ECA) projections (UNECA, 2022[17]) show major growth in trade in urban sectors, due to the implementation of the AfCFTA (Figure 2.4). Industry (excluding energy and mining) accounts for 66% of the forecast growth to 2040 across the continent. Among the top 10 sectors in terms of total gains in USD are manufacturing sectors typically based in prime and secondary cities: vehicles and transport equipment (USD 8.4 billion increase), metals (USD 8.1 billion increase), machinery (USD 7.6 billion increase), chemical products (USD 5.5 billion increase), other food products (USD 2.8 billion increase) and textiles (USD 2 billion increase). Food and agriculture accounts for 20% of the export growth forecast under AfCFTA (UNECA, 2022[17]), with implications for small and intermediary cities, a large share of whose value added originates in these sectors (Henderson and Kriticos, 2018[22]).

Figure 2.4. Projected change in intra-African exports from AfCFTA by major sectors

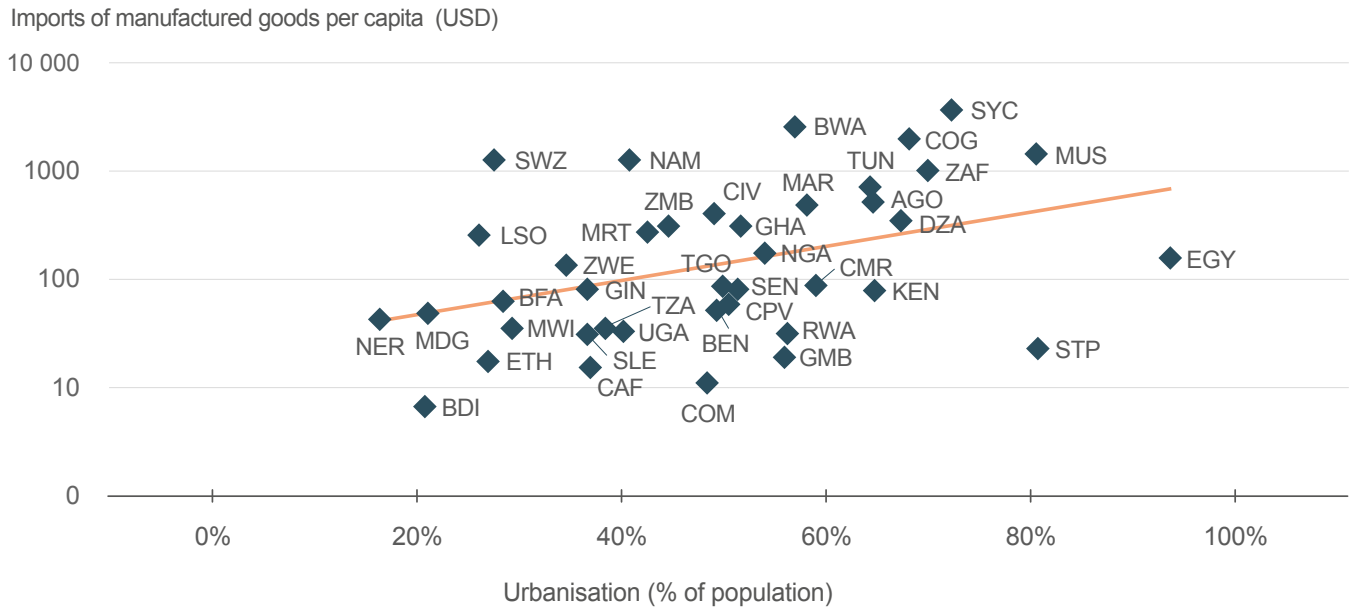


Source (UNECA, 2022[17]), State of Urbanization Report 2021. Cities: Gateways for Africa's Regional Economic Integration.

Africa's cities are major consumer markets that will benefit from lower trade barriers

African cities are also major markets for traded goods, including manufactured goods and food. They are home to Africa's emerging middle classes, with income levels that allow for significant spending on consumption. Although the size of the middle class is subject to debate, it is clear that it is urban. Major cities are the region's consumer markets, due to their higher incomes and sheer population size (Gadzala, 2017[23]; Oxford Economics, 2020[24]). Households in urban areas tend to consume more processed foods and manufactured goods and spend more on housing (UNECA, 2017[25]). Countries that are more urbanised tend to import more manufactured goods per capita (Figure 2.5). Reducing intraregional trade barriers provides a major opportunity for African exporters to tap into this growing urban demand (UNECA, 2017[25]).

Figure 2.5. Urbanisation and imports of manufactured goods



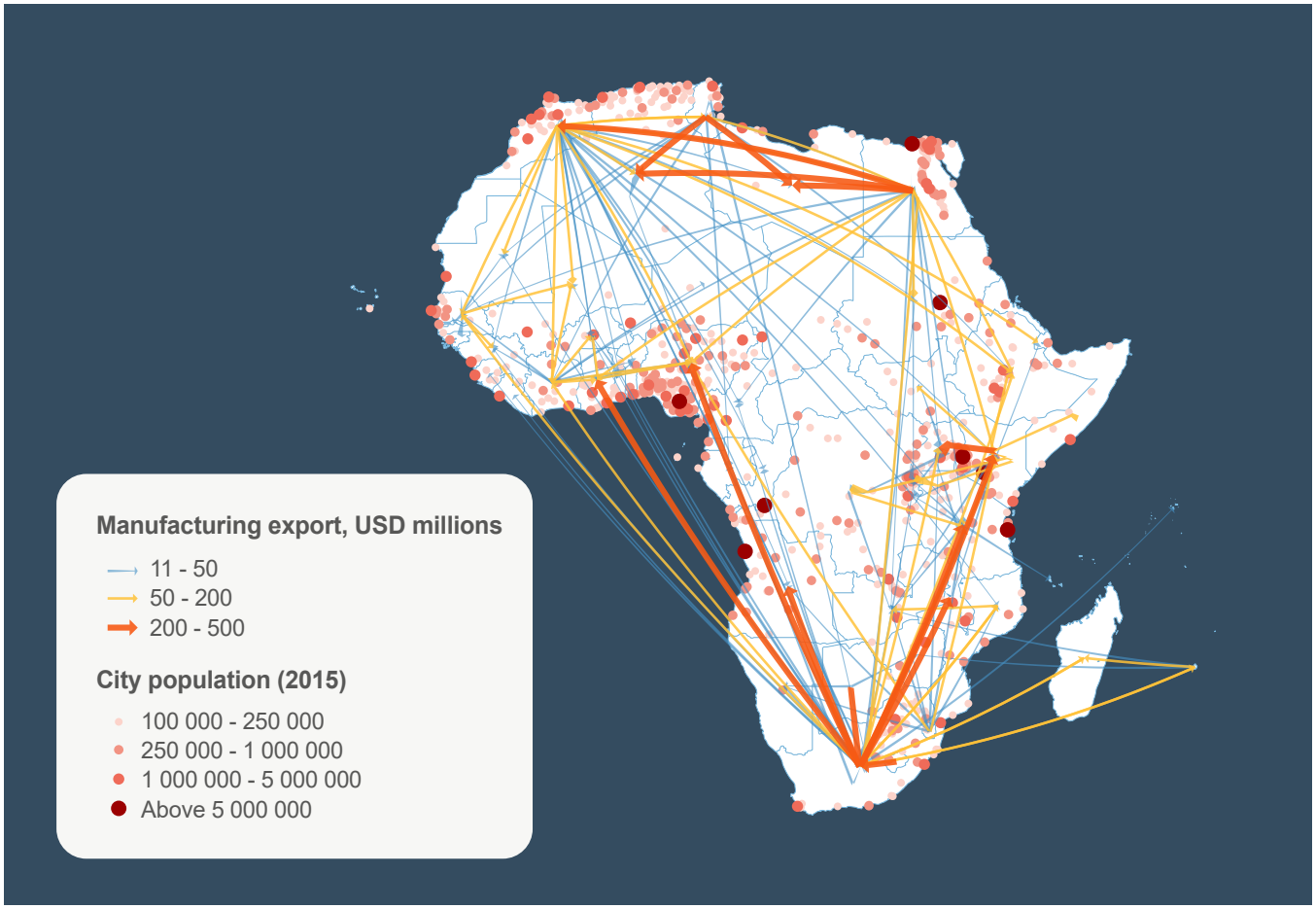
Source (World Development Indicators[26]; OECD/SWAC, 2018[2]).

As the costs of traded goods fall, consumers reap the gains of lower prices (Melitz and Trefler, 2012[27]) and urban consumers are the main beneficiaries, due to their higher consumption of traded goods (Marchand, 2017[28]). This is likely to be the case with AfCFTA implementation, as it is predicted to have a major impact on trade in food, which is central to the budgets of the urban poor. Urban firms also benefit from less costly imports, and there is growing potential for business-to-business intra-African trade and emerging regional value chains, supported by the implementation of AfCFTA (UNECA, 2022[17]).

Major cities that already have a sizeable tradeable sector are likely to see some of the largest gains from intraregional trade integration. According to new economic geography trade theory, production tends to concentrate as transport and trade costs fall. Firms cluster to take advantage of agglomeration economies, especially if they can easily reach cross-border markets with their goods and services (Fujita, 2007[29]). Already most intraregional exports of urban goods arise in a few major trade hubs: South Africa, Nigeria, Egypt, Morocco and Senegal (Map 2.7). Increases in intraregional exports projected under AfCFTA follow a similar pattern, with the three largest economies by total GDP, Egypt, Nigeria and South Africa, together forecast to account for 44% to 47% of total intra-African export gains (UNECA, 2022[17]). These countries have some of Africa's largest urban agglomerations, with cities such as Johannesburg, Cairo and Lagos poised to continue as regional centres of gravity under AfCFTA.

Africa's intraregional urban exports form a doughnut pattern, with the strongest flows around the edges and a hollow centre. Countries also trade more with nearby countries than with countries further away (Map 2.7). North and Southern Africa are each dominated by a single subregional hub (Egypt and South Africa, respectively), whereas the East and West Africa clusters have multiple trade hubs and tend to be more fragmented by national borders. Meanwhile, Central Africa has been largely bypassed by subregional trade flows (UNECA, 2022[17]). However, landlocked countries in Central Africa do stand to benefit from the AfCFTA, as the absence of ports makes them more reliant on intra-African trade (UNECA, 2022[17]).

Map 2.7. Intraregional urban export flows over USD 10 million



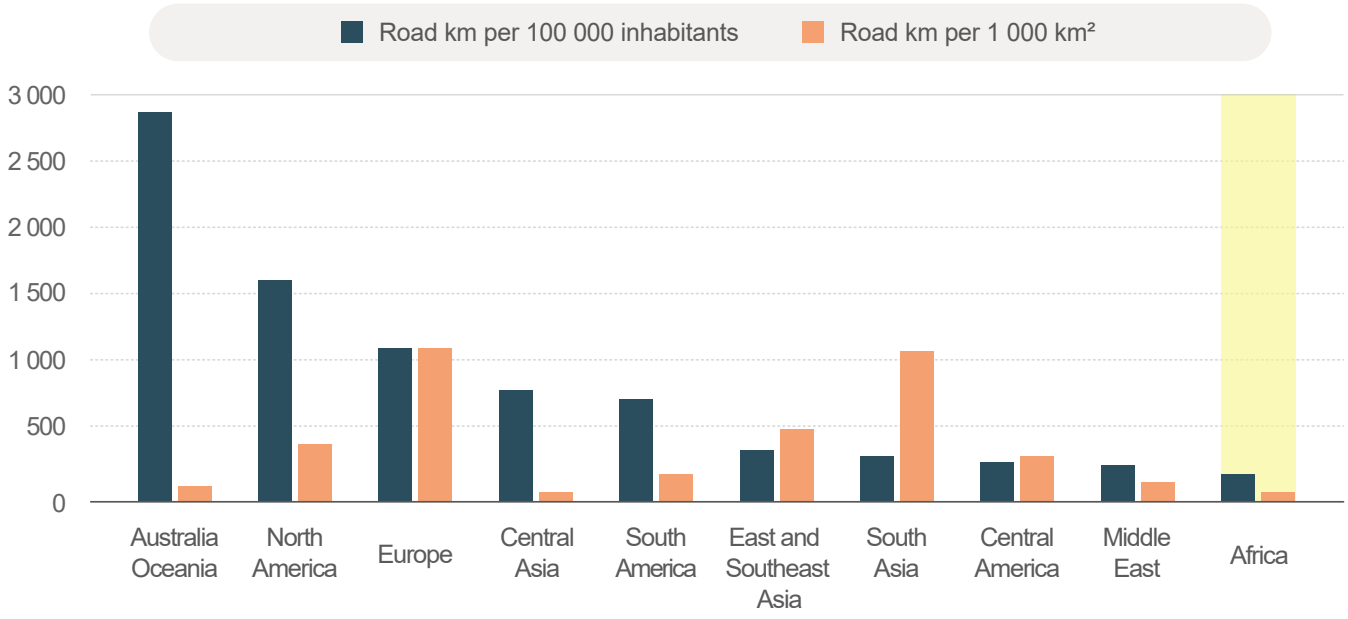
Source ICT TradeMap (exports), (OECD/SWAC. 2018[2]), Africapolis (database); year of data: 2015-19 average.

Large cities will not be the only beneficiaries of regional trade integration. Cross-border trade opportunities are also emerging for small cities to connect with larger urban markets. Trade integration presents opportunities for smaller cities to serve regional markets as trade barriers fall. Small cities may benefit in multiple ways, including their role in the food supply chain serving food-processing firms located in larger cities, increased food demand from consumers in big cities; and finally, potential long-term benefits from e-commerce and distributed economies. Approximately 41 million Africans live in small or midsized cities where the nearest major city of 300 000 or more is across a national border. Of those, about 16 million live in cities of 50 000 or less.

While barriers to international trade are a major bottleneck for intercity trade, reducing trade barriers is not the only measure needed. A key factor in connecting Africa's cities is transport infrastructure. Throughout large parts of Africa, transport infrastructure is insufficient even by comparison with other countries at similar levels of development. This increases journey times for both people and goods, makes journeys unpredictable and generally raises the costs of travelling between cities.

The literature provides considerable theoretical and empirical evidence of the importance of transport costs for urban economies (Storeygard, 2016[30]). While the degree to which transport costs are influenced by infrastructure quality is debated (World Bank, 2008[31]), the need to invest in infrastructure in Africa is undisputed. Of all global regions, the continent has the fewest kilometres of road per capita and per area (Figure 2.6).

Figure 2.6. Road length per capita and per area



Source OECD/SWAC calculations based on CIA (2021[32]).

Successful city clusters worldwide have in common that they are served by high-quality transport infrastructure that connects cities closely. Fast, cheap and convenient flows of people, goods and information between cities facilitate the emergence of interconnected economies that create agglomeration economies and network economies, which in turn initiate a virtuous cycle that attracts further businesses.

The emerging city clusters that have been identified above provide a significant indication of where transport infrastructure investments can yield high returns. Due to the density of population and economic activity in these clusters, roads and rail lines are likely to benefit a greater number of users. Many city clusters have only low levels of transport infrastructure, and investments in such infrastructure are likely to generate high returns. Cities' greater potential numbers of users of transport infrastructure are one of their major economic advantages over rural areas. Unlike in rural areas, transport investments, in a commuter rail line, for example, can thus be economically viable.

However, intercity transport infrastructure will yield high returns only if they are made through an appropriate governance structure that directs investments to where they are most efficient and co-ordinates them with other policy measures (ITF, 2018[33]). While major road investments fall under the purview of national governments, it is important that they be linked to local infrastructure, which is frequently the responsibility of subnational governments. Infrastructure investments need to be co-ordinated with policies outside the transportation sector, such as land use policies (see further discussion in Chapter 4).

A lack of co-ordination between policy sectors and levels of government can lead to a range of unintended consequences. In the 20th century, motorways in high-income countries were often constructed through built-up areas without consideration of their local effects. This led to blight in cities that virtually destroyed entire neighbourhoods, with detrimental economic and social effects for several decades (Lewis, 2017[34]). Intercity transport infrastructure that is not well connected to local infrastructure can equally have negative consequences. It can lead to congestion at the points where intercity roads connect to local roads, or make train journeys inefficient if the railway stations cannot be easily reached from cities.

Box 2.3. New metrics to describe Africa's road network

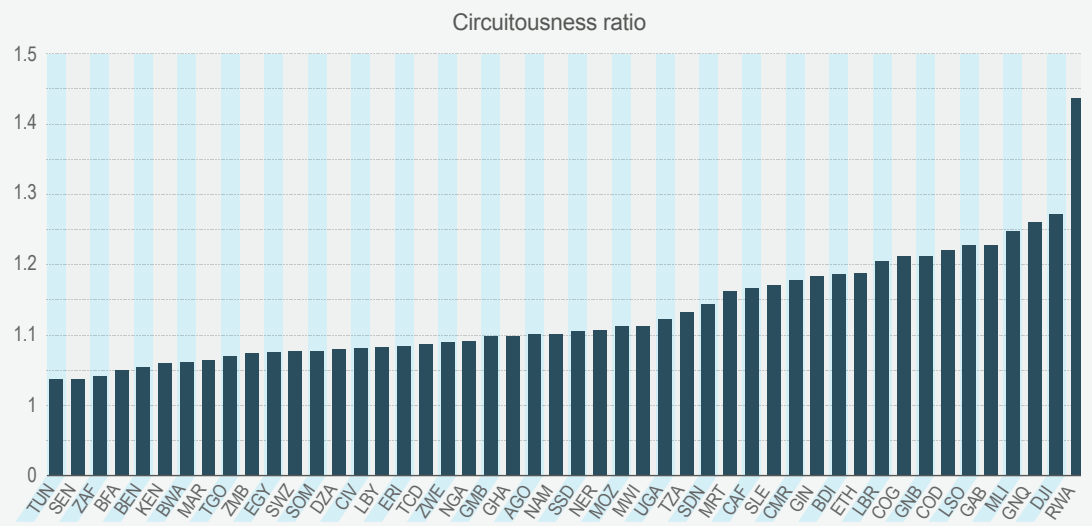
The network analysis that was used above to identify city clusters makes it possible to develop new metrics for the road network of African countries. These measures rely on the relationship between the geographic distance between two cities and the actual travel distance along primary roads between the cities.

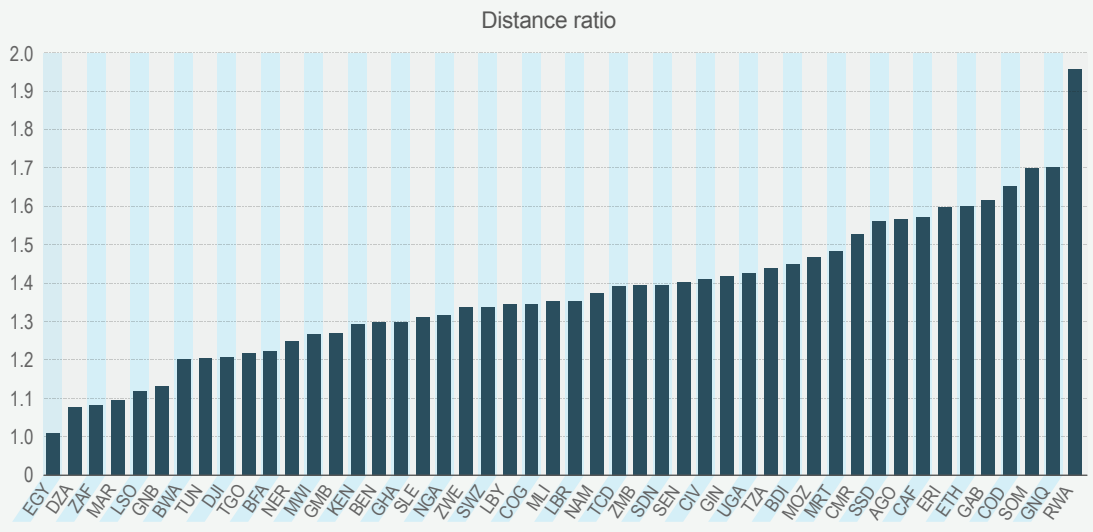
The circuitousness ratio is a measure of whether roads in a country take a direct path or if they make detours to avoid natural obstacles such as rivers or mountains. It is applied to two cities that are directly connected by a road. If the road is perfectly straight, the geographical distance is identical to the travel distance and the ratio between the two is 1. This ratio increases the more a road deviates from a straight line and the travel distance between the cities increases. By computing the ratio for all city-pairs within a country that are directly connected by a road, it is possible to calculate the average circuitousness ratio by country.

The distance ratio is a similar ratio that also takes into account that many cities are not connected by a direct road. Instead of going directly from one city to another, detours via other cities are needed. The distance ratio takes this into account by calculating the ratio of the road distance relative to the geographical distance for all cities within a country, whether or not they are connected by a direct road. The country average of this ratio is influenced by two factors, the circuitousness of the existing roads and the degree to which the road network requires detours via other cities instead of connecting city-pairs directly.

Both measures depend strongly on geographic conditions. Cities located on a flat plain with no major obstacles between them are easier to connect by a direct road than cities separated by a mountain range. Thus, Rwanda, one of Africa's most rugged countries, has the highest values on both indices. Moreover, income levels are an important determinant of the state of the road network. It is thus no surprise that some of Africa's most developed countries, such as Algeria, Egypt and South Africa, have the lowest road-to-geographical-distance ratio, indicating that most of their cities are connected by direct road links.

Figure 2.7. Circuitousness ratio (top) and distance ratio (bottom) by country



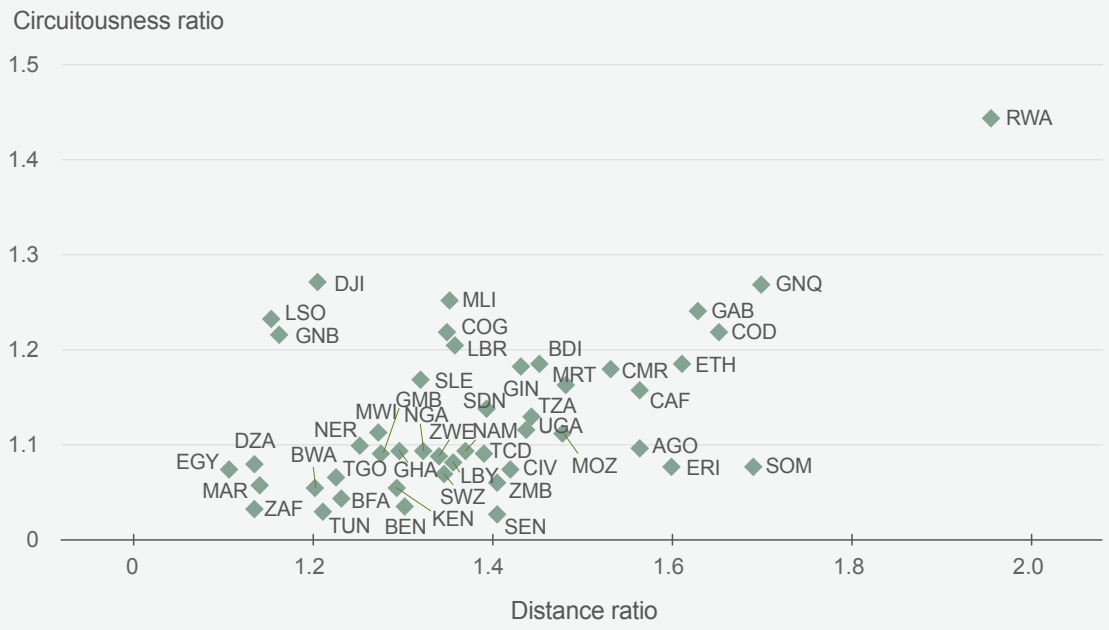


Note The circuitousness ratio is defined as the ratio of the average length of a road and the average distance between the starting and end points of a road. It measures how curvy a road is (i.e. how far it deviates from being a straight line). The distance ratio is the ratio of the average travel distance between a city pair along the primary road network and the geographical distance between the city pair. The distance ratio reflects the circuitousness of roads and also the fact that many city pairs have no direct road connections, requiring detours via other cities (see Prieto Curiel et al. (2021[13]) for details).

Source OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

Figure 2.8 shows the relationship between the circuitousness ratio and the network-distance ratio. Some countries, like Somalia, have a high network-distance ratio, but a low circuitousness ratio. This indicates that the roads in the country are relatively straight, but that many cities are not connected by direct roads, making it necessary to make detours via other cities. In contrast, other countries have a relatively high circuitousness ratio, but a low network-distance ratio. In those countries, many cities are connected by direct roads, but the roads tend to be relatively circuitous. This pattern can also occur in countries where many cities are connected with each other by multiple roads, such as Egypt. Some of these roads might be modern motorways that connect cities directly, thereby reducing the network-distance ratio, while older, less straight roads that exist in parallel increase a country's circuitousness ratio.

Figure 2.8. Relationship between circuitousness ratio and distance ratio



Note A detailed description of the underlying methodology is provided in Prieto Curiel et al. (2021[13]).

Source OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

Good railway links are essential to connect cities within clusters

City clusters have been identified based on existing road links between cities because road transport is by far the most prevalent mode of transport between cities in most of Africa. Other modes of transport, however, are equally important for connecting cities within urban clusters. Rail transport is an essential mode of transport within city clusters. In many countries, it achieves modal shares of well above 50% for intercity journeys at distance of several hundred kilometres (L.E.K., 2019[35]). For example, more than two-thirds of journeys between Korea's largest and second-largest cities, Seoul and Busan, which are located at a distance of approximately 330 kilometres, are made by rail (Matsumoto, Morichi and Acharya, n.d.[36]).

While rail infrastructure may be considered to be of lower priority than road infrastructure, the example of China shows that investments in railways can have high returns. China started to invest large sums in upgrading its existing rail network in the mid-1990s, when its annual per capita GDP was USD 1 100, and it began to build its high-speed rail network in the mid-2000s, when its per capita GDP was approximately USD 2 400. Most African countries reach or exceed these income levels today. To avoid over-relying on road transport, they need to scale up their investments in rail transport at the urban and intercity level.

Rail transport has four crucial advantages over road transport in urban and interurban settings. First, railways have a significantly higher passenger capacity than roads. This is important in cities where large numbers of passengers need to be transported, roads

are congested, and space is scarce. Dual-track railways can carry more than 50 000 passengers per hour (RATP, 2017[37]). By comparison, a single lane of a motorway has a maximum capacity of approximately 2 000 vehicles per hour (National Roads Authority, 2012[38]). Even busy motorways tend to carry less than 20 000 vehicles per lane and day, less than the number of passengers a railway can carry per track in a single hour.

Second, modern railways tend to be the fastest mode of transport between cities in urban clusters. They reach significantly higher speeds than cars and are not affected by congestion. Rail journeys between cities are faster than road journeys, even after factoring in the travel time to and from train stations. Many high-speed railway lines exceed operational speeds of 300 kilometres per hour, including Africa's first high-speed rail connection between Tangier and Casablanca in Morocco (Box 2.3. New metrics to describe Africa's road network). Even operational speeds of less than half that can offer significant time savings over congested road transport connections in large urban clusters. Rail travel also tends to be faster than air travel over the typical distances within city clusters, because airports are often far from city centres and lengthy boarding procedures add to journey times.

Third, rail transport has a better environmental footprint than road transport. Carbon emissions per passenger kilometre of train journeys are between 3% and 24% of the carbon emissions per passenger kilometre in a private car (Department for Business, Energy and Industrial Strategy, 2020[39]). Moreover, rail transport creates much lower amounts of hazardous air pollution than road transport. This is especially important in densely populated urban areas, which are usually more severely affected by air pollution than other parts of a country.

Fourth, increased railway passenger traffic has the potential to reduce the danger linked to road traffic on the continent, with a positive effect on road safety and road-related fatalities. Africa has the highest ratio of road accidents of any continent, with over 23% of global road-related deaths, at a rate of 27.5 per 100 000 inhabitants (World Bank, 2019[40]). Given a total mortality rate of 840 per 100 000 inhabitants, this implies that 3.3% of all deaths in Africa are due to traffic accidents. Shifting road traffic to much safer rail journeys is one option for reducing fatalities.

Box 2.4. Rapid rail is the transport backbone of many city clusters

Japan's Tōkaidō Shinkansen, the world's oldest high-speed railway, links one of the largest global city clusters

The Tōkaidō Shinkansen high-speed railway line is the world's oldest and one of its most successful high-speed railway lines. It connects Tokyo, Nagoya, Kyoto and Osaka, the most important cities of the Taiheiyō Belt megalopolis, whose urban areas have a combined population of 60 million inhabitants. When it was opened in 1964, it allowed for travel speeds of up 210 kilometres per hour, but the line has since been upgraded to operate at speeds of 285 kilometres per hour, making it possible to travel the 515 kilometres from Tokyo to Osaka in approximately 2.5 hours.

Its operating speed is now exceeded by many other high-speed railway systems, but its frequency and passenger volume are still outstanding. In 2016, 365 trains were running on the line daily, carrying 455 000 passengers a day. To increase capacity and reduce travel times, Japan is building a maglev line along the same corridor that can operate at speeds of 500 kilometres per hour. In a first stage, it will connect Tokyo and Nagoya, before potentially being extended to Osaka.

Al-Boraq is Africa's first high-speed railway, linking Tangier to Casablanca

The first high-speed railway line in Africa opened in 2018 in Morocco, and connects Tangier with Rabat and Casablanca. It runs partly on an upgraded existing railway line and partly on a newly built high-speed line that allows for operating speeds of 320 kilometres per hour. The opening of the 323 kilometres of railway reduced travel times on between Tanger and Casablanca from 4:45 hours to 2 hours 10 minutes, roughly half as much as it takes to travel the same route by car. The railway line offers connections every 30 minutes during peak times and hourly connections during off-peak times.

In the first 16 months of its operation, 3 million passengers travelled on the line. Plans for further extensions include the construction of further high-speed tracks along the stretches that are currently operated on upgraded older tracks, as well as the construction of a high-speed railway between Marrakech and Agadir. Moreover, an extension of the commuter rail network within Casablanca is planned, to improve the links of the railway station with the surrounding metropolitan area.

Source (Briginshaw, 2014[41]), International Railway Journal, https://www.railjournal.com/in_depth/shinkansen-half-a-century-of-speed; (Matsumoto, Okuda and Fukasawa, 2018[42]), Method for Forecasting Fluctuation in Railway Passenger Demand for High-speed Rail Services, http://dx.doi.org/10.2219/rtriqr.59.3_194.

Notes

1 These may occur at the border or at other locations, such as warehouses, where export formalities take place and goods are checked.

2 Little systematic information is available on the impact of trade barriers on small-scale trade. This is partly due to the informal nature of much of this trade (Bensassi, Jarreau and Mitaritonna, 2018[9]) and partly to major differences in products, border crossings and shipment sizes. Moreover, costs can accrue in various ways, including lengthy wait times and the need to pay fees or bribes.

3 The technical details of the model can be found in (Prieto Curiel et al., 2021[13]).

4 Travel times are estimated based on road lengths and the road classification (e.g. primary road, secondary road) provided in OpenStreetMap.

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Annex 2.A. Tables
City clusters across Africa

Annex Table 2.A.1. Compact city clusters

Clusters of cities with more than 2.5 million urban residents within 100 kilometres' travel distance

Cluster name	Total urban population	Total population	Number of cities	Cities bigger than 1 million	Total cluster area (square kilometre)	Total built up area (square kilometre)
Cairo-Alexandria-Suhag	81 892 000	92 039 000	1 005	7	73 108	6 344
Lagos-Ibadan-Cotonou	32 988 000	45 629 000	246	3	65 715	5 647
Onitsha-Uyo-Port Harcourt	27 582 000	42 587 000	201	6	54 510	8 393
Johannesburg-Soshanguve-Evaton Central	15 830 000	19 970 000	112	2	55 388	4 141
Casablanca-Rabat-Meknes	10 666 000	14 576 000	40	3	37 336	1 168
Addis Ababa-Sodo-Hawassa	10 582 000	16 019 000	60	3	29 068	4 277
Accra-Kumasi-Koforidua	10 432 000	17 972 000	101	2	47 990	2 681
Kisumu-Mbale-Kericho	9 887 000	12 542 000	22	2	21 379	9 549
Kinshasa-Brazzaville-Mbanza-Ngungu	9 212 000	9 126 000	13	2	7 295	701
Alger-Blida-Tizi Ouzou	7 877 000	12 065 000	85	1	29 825	1 512
Nairobi-Machakos-Tala/Kangundo	7 747 000	11 434 000	21	1	15 440	2 461
Luanda-Sassalemba-Caxito	7 116 000	16 925 000	3	1	5 578	1 011
Kampala-Jinja-Njeru	6 513 000	10 338 000	44	1	17 623	1 561
Dar es Salaam-Zanzibar-Mkwajuni	6 339 000	8 753 000	11	1	11 039	1 305
Khartum-al-Khalas-al-Sururab West	6 076 000	6 038 000	24	1	5 107	1 019
Kigali-Gisenyi/Kisoro-Ruhango	5 835 000	10 921 000	28	2	16 275	1 989
Abidjan-Grand-Bassam-Adzope	5 457 000	5 681 000	30	1	14 388	519
Kano-Wudil-Gwarzo	5 131 000	14,283 000	53	1	17 859	430
Kisii-Bomet-Migori	4 772 000	5 283 000	6	1	9 851	7 686
Cape Town-Paarl Central-Strand Central	4 705 000	5 942 000	27	1	16 818	855
Tunis-Sousse-Nabeul	4 685 000	6 606 000	41	1	23 013	884
Durban-Pietermaritzburg Central-Empumalanga	4 684 000	6 006 000	30	1	13 420	1 445
Dakar-Thies-Mbour	4 378 000	6 726 000	21	1	10 215	436
Abuja-Karu-Gwagwalada	4 123 000	7 044 000	45	1	21 049	868
Yaoundé-Mbalmayo-Obala	4 055 000	4 917 000	6	1	8 637	383
Constantine-Setif-El Eulma	3 966 000	6 607 000	91	0	26 094	666
Douala-Limbe-Buea	3 672 000	4 978 000	22	1	10 364	438
Bamako-Koulikoro	2 845 000	5 443 000	3	1	5 481	515
Cidade de Maputo-Municipio de Manhiça-Vila de Boane	2 836 000	3 167 000	10	1	5 240	1 012
Harare-Ruwa-Marondera	2 723 000	3 677 000	10	1	16 578	900
Lusaka-Kafue-Chongwe	2 613 000	3 682 000	4	1	8 556	718

Note See Box 2.1 for details on the definition of city clusters.

Source OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

Annex Table 2.A.2. Expansive city clusters

Clusters of cities with more than 10 million urban residents within 250 kilometres' travel distance

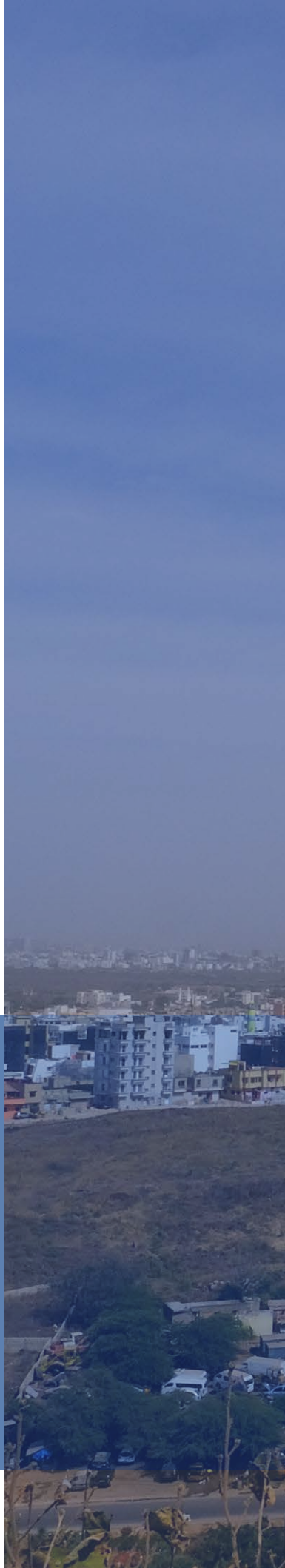
Cluster name	Total urban population	Total population	Number of cities	Cities bigger than 1 million	Total cluster area (square kilometre)	Total built up area (square kilometre)
West African Cluster	83 903 000	139 017 000	821	12	321 499	19 169
Nile River Cluster	82 583 000	93 427 000	1 025	7	138 412	6 549
Great Lake Cluster	35 589 000	57 522 000	151	6	155 281	26 862
Algeria Cluster	19 789 000	32 380 000	332	2	138 095	3 470
South African Cluster	19 651 000	27 377 000	236	2	232 890	6 209
Morocco Cluster	15 807 000	26 358 000	107	5	120 991	1 692

Note See Box 2.1 for details on the definition of city clusters.

Source OECD/SWAC calculations based on OpenStreetMap (2021[1]) and OECD/SWAC (2018[2]).

3

Anchoring the role of cities in national economic planning



This chapter outlines how important it is to draw up a roadmap for the future of cities in national economic strategies. Co-ordinating and designing policies at both the national and the local level is vital for every region of a country and every sector of the economy. The chapter offers an overview of several aspects of national policy that national governments can consider to support and boost the economic performance of cities and, in particular, it emphasises the importance of investing in human capital, infrastructure and public institutions. The final section of the chapter describes a variety of policy packages and measures that governments can draw upon to bring cities to the forefront of national economic policy.

In Brief

Anchoring the role of cities in national economic planning

National governments should anchor urban policy in economic planning, because urbanisation and economic development are closely intertwined. Cities are responsible for most economic growth and job creation in almost all countries. Their economic performance plays a crucial part in national economic success, and this is only likely to increase as urbanisation progresses. This chapter presents a set of key considerations for policy making on the economic role of cities, and a framework with thematic entry points and policy recommendations[1] for incorporating their role in national economic planning.

Targeted and coherent policies for cities are important because many national policies have spatially diverse effects, and their impact on cities is different from their impact on rural areas. Governments must consider this diversity and ensure that national policies are appropriate for fast-growing cities. Urban development requires large investments and involves multiple actors and financing sources. Well-designed national development plans can co-ordinate a multitude of actors and objectives and ensure that the economic development of cities is appropriately supported.

The number and quality of jobs that urban centres create and the productivity levels of their firms and workers determine their economic contribution. To strengthen the economic performance of cities in Africa, policy makers need to address several dimensions:

- On average, Africa's largest cities are the most productive, but their high cost of doing business and elevated cost of living reduce their economic competitiveness and the living standards of the population. This is a sign of agglomeration diseconomies that are caused by under-planning and underinvestment.
- Human capital is one of the most important determinants of productivity, especially in urban areas. Workers in large cities benefit more from high skill levels than workers in small cities. Conversely, highly skilled populations increase the agglomeration economies that cities can generate.
- Infrastructure at the local and the national level matters for economic development. The empirical evidence is strongest on the importance of a stable electricity supply, but many other types of infrastructure, such as transport, information and communication technologies (ICT), and water and sanitation, also have important consequences for economic performance. Significant increases in public investment are needed, but such investments within a city need to be co-ordinated across policy sectors and across levels of government if they are to be effective.
- Institutions and the regulatory environment are key conditions for productivity in cities. Smoothly functioning institutions and predictable regulatory environments give firms the certainty they need to make investments. Likewise, good institutions and regulations make it possible, among other things, to secure finance and acquire land, enforce contracts and protect innovations. This is essential if firms are to grow and to increase their productivity.
- Urban form affects many drivers of agglomeration economies, such as the accessibility of jobs and firms' proximity to each other. However, few rigorous empirical studies on their importance in Africa exist and further research is needed to quantify the effect of these factors on the continent.

African cities have to provide jobs for a rapidly growing number of workers. Governments thus need to facilitate a job-rich urbanisation. Job growth in low-productivity sectors such as unskilled services runs the risk of stalling productivity. To avoid this outcome, growth in manufacturing and tradeable services, and in sectors that can deliver both job growth and productivity growth, is essential for urban economies.

Investing in the most productive cities, including primary cities, should be a priority for maximising agglomeration economies. At the same time, to redress spatial inequalities, well-targeted investments are needed in mid-size cities, as well as infrastructure that connects cities of different sizes. Policies that focus on the role of small cities with populations under 50 000 are also essential. Investments need to include human capital development and social protection, as well as sectoral policies to better match sectoral needs with preferred urban locations, and to enable firm and job churning through factor mobility between cities.

Beyond any individual policy, national governments need to ensure a coherent policy environment

for urban areas. Policy packages are generally more effective than isolated policies, because they can generate complementarities and address bottlenecks. Public policies thus have to be co-ordinated across sectors and levels of government.

Why should national governments integrate cities into national economic plans?

Africa is urbanising at unprecedented speed. In 1950, just 13% of the population lived in urban areas. By 2015, this had risen to over 50% (OECD/SWAC, 2018[1]). Urban areas generate a majority of GDP, are centres of innovation, and connect African countries to other economies in Africa and the world. Cities are at the forefront of social, environmental and economic development. Planning for their growth and embedding their potential in national economic planning will ensure that cities propel African countries into a sustainable and more equitable future.

Urbanisation provides a unique opportunity for economic development. The shift of labour from low-productivity rural economies to high-productivity urban economies dominated by manufacturing and services has been a key feature of economic development across the globe. The productivity advantages of cities are reflected in income levels that tend to be higher than in rural areas. However, urbanisation is associated with economic growth and structural transformation not only in cities, but also in rural areas. Without urbanisation, no rural areas have reached high income levels. As people move to towns, rural living standards can rise, because the remaining rural inhabitants have more land on which to work, and can earn more as they service the rising urban demand for food (Collier, 2017[2]).

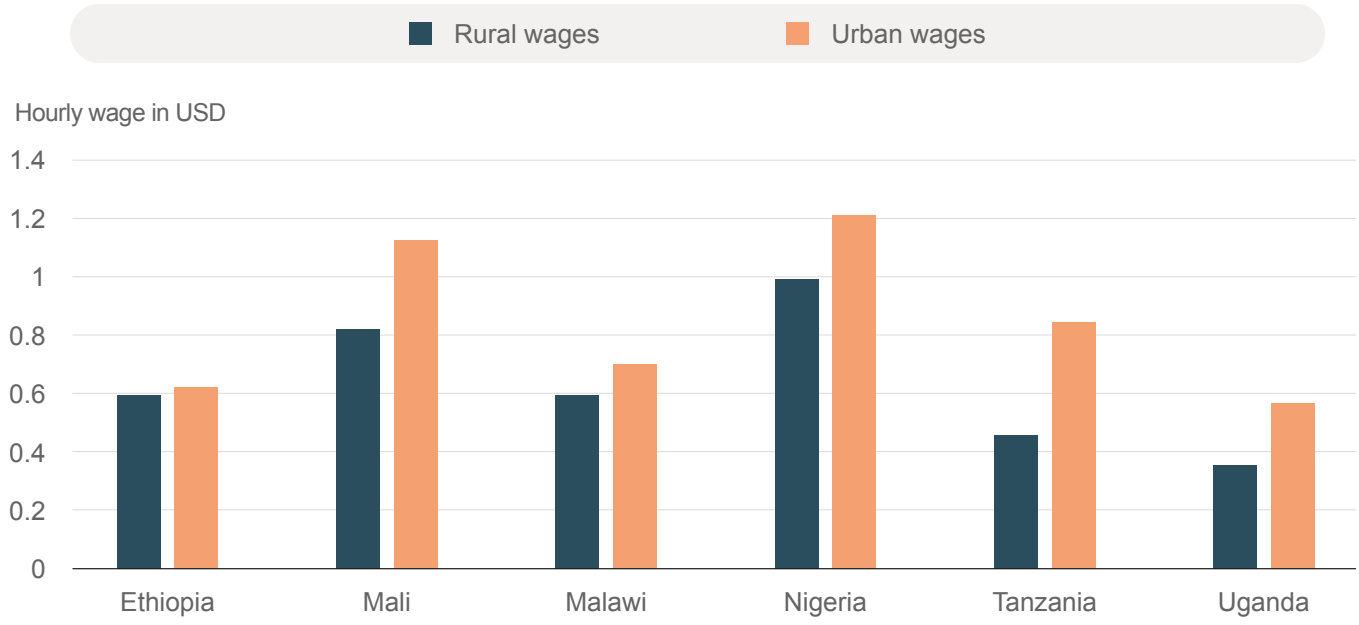
The positive impact of urbanisation on economic development will only be realised, however, if urbanisation is accompanied by appropriate national policies targeted at cities. Integrating cities into national economic planning is imperative, for three compelling reasons: 1) urban productivity is critical to Africa's economic growth and job creation; 2) economic policies have a strong spatial impact, which needs to be anticipated and co-ordinated; 3) urban investment is sizable, multisectoral and long term; this is complex and should be co-ordinated at the national level.

Urban productivity is critical to Africa's economic growth and job creation

Investing in fast-growing urban areas is strategically important for countries, because boosting urban economic development boosts national economic growth. As countries urbanise and economies transition, economic activity that drives national economic growth will increasingly become concentrated in cities, and as a result, economic growth will be determined by urban productivity. The more urbanisation progresses, the more important the performance of the urban economy becomes for national economic performance.

No country in the world has ever turned into a high-income economy without urbanising. Only urban economies can support the strong manufacturing and service sectors that are the backbone of advanced economies. Cities provide the pools of skilled workers, customers and suppliers, as well as the infrastructure that large firms need to operate efficiently. Moreover, cities can create jobs for growing populations, in contrast to rural areas, where labour demand in the agricultural sector often stagnates or grows only slowly.

Figure 3.1. Urban and rural wages in six African countries



Note Based on data from 2010-2019. Due to cross-country differences in survey methodologies, wage levels are not comparable across countries, but the rural-urban wage gap within each country is consistently estimated.

Source OECD/SWAC calculations based on World Bank LSMS (2008-2019[3]) and OECD/SWAC (2018[1]).

The advantages of cities for a modern economy are reflected in agglomeration economies and the urban wage premium. Firms and workers in cities are more productive and workers earn higher wages. However, it is important to note that urbanisation does not occur at the expense of rural income levels. In fact, the opposite is typically the case. As the available labour supply for agriculture declines, due to urbanisation, rural wages rise and capital investment in the agricultural sector becomes more profitable, thus leading to higher productivity. Moreover, urbanisation can reduce excess rural labour supply and land fragmentation, two factors that have been linked to low land productivity (Desiere and Jolliffe, 2018[4]). Lastly, increasing demand for food from growing urban populations can increase rural income levels.

Countries benefit most from the shift from low-productivity agriculture to high-productivity manufacturing and services at the height of the urbanisation process, when migration from rural to urban areas is at its peak. Africa needs to exploit the urban productivity advantage now, by investing in better planned cities with more efficient infrastructure (Venables, 2018[5]). The cost of poor planning and investment in cities in terms of lost productivity gains is arguably highest in developing economies, because it holds back the emergence of a productive manufacturing sector. African cities' fragmentation and poor connectivity limit access to jobs, leading to labour misallocation and reducing productivity (World Bank, 2020[6]).

National economic policies have a strong spatial impact, which needs to be anticipated

National economic policies and sector initiatives have a strong and often durable spatial impact, and space-blind[2] policies can be costly. A spatial development lens takes into account the national system of cities, the distribution of people and activities in a territory, and their roles in socioeconomic development. Urban development is path-dependent. Many African cities were established in the colonial period to facilitate the production and export of natural resources and agricultural commodities. The cities persisted and grew, even as the extractive economic activities and the transport systems that sustained them, such as railway lines, diminished in importance. To some extent, the infrastructure stock these cities inherited

at independence and the migration and growth inertia that continued in the subsequent periods have sustained them, even after they lost their original economic advantages (Jedwab and Moradi, 2016[7]).

The lesson is clear: economic policies have robust and enduring spatial impacts. Industrial policy is another prime example. Historically, industrial policies in developing economies have promoted import substitution and exports. Where high technology industries requiring highly skilled workers became the focus, growth has tended to be concentrated in a few large urban centres, especially in coastal locations, as has been the case in countries like Korea (Fullerton, 1997[8]). In Africa, the state-led drive for import substitution industrialisation of the early post-colonial period coincided with rapid urban population growth, particularly in the largest cities, where industrial job opportunities were concentrated. Few alternative locations for industrial growth outside the capital or primary cities existed, as infrastructure and human resource capacity remained limited.

Policies in sectors that can appear to be further removed from cities, such as agriculture and food production, can have a potent effect on cities, underscoring the need for a spatial lens in development. Interventions to increase agricultural productivity, for example, could lead to the emergence of dynamic small and intermediary cities that capitalise on domestic food value chains in the targeted agriculture belt. The relationships between economic policies and spatial outcomes, however, are not always linear. Their intended and unintended consequences need to be carefully assessed and managed.

Urban investment across sectors varies in scale, is sporadic and should be co-ordinated

The economic case for investing in African cities is compelling. Africa's urban population is poised to nearly double over the next two decades,[3] and by 2025, African cities will already account for nearly two-thirds of GDP and an even greater share of GDP growth (MGI, 2011[9]). "Poor infrastructure shaves up to 2 % off Africa's average per capita growth rates" and severely affects "firms with high value addition, broad job opportunities, and wide sectoral linkages" (AfDB, 2018, p. 73[10]). Although, compared to other regions, Africa would benefit most from infrastructure improvements, African cities remain under-planned and underinvested. Poor infrastructure is reflected, for example, in the high cost of electricity, which reduces firms' competitiveness. On average, African firms pay between USD 0.07 and USD 0.10 more per Kilowatt hour for electricity than firms in East Asia and South Asia. Estimates of the annual total African infrastructure investment gap range between USD 67.6 billion and USD 107.5 billion, figures that will increase with increasing levels of urbanisation. Strategic infrastructure such as ports, highways, digital communications backbones and Special Economic Zones (SEZ) are national in their geographic scope, but are fundamental to urban economies. Transport, energy and ICT, which account for 70% of national infrastructure investment, are critical to urban economic performance (UNECA, 2018b[11]).

While investment in cities is important, not all investment has an equal impact. To maximise the benefits of investment, investments need to be well planned and co-ordinated. Capital investment in cities, such as housing, commercial properties, industrial plants and infrastructure, has a long life and is immobile. The value of each element depends on other investments in the urban area. Each investor, including households, entrepreneurs and public authorities, needs to know what other investors are going to do in order to make good investment decisions (Collier, 2017, p. 14[2]). Moreover, the effectiveness of public investments by different levels of governments depend on each other. For example, investments in a SEZ undertaken by a Ministry of Commerce might depend on parallel investments in road infrastructure linking the SEZ to a port, which might be the responsibility of the Ministry of Transport.

Horizontal and vertical co-ordination between firms, between economic sectors, and between levels of government is key to maximising the complementarities between investment decisions. Co-ordination is also essential within individual urban sectors such as housing, due to the multi-dimensionality of inputs, such as land, finance and skills, and the multiplier effect that urban investment generates in terms of jobs, livelihoods, income and property taxes. According to one estimate, making long-term mortgages available, for the value of 80% of the cheapest house, could potentially create 1.3 million construction jobs in Africa (CAHF, 2017[12]), significantly increasing tax revenue. Often, however, public spending on investments comes from budgets other than the budgets to which revenues from the investments will be allocated. Without proper co-ordination between sectors, profitable public investments may not be made, because decision makers factor in only the costs for one budget, without taking into account the revenues that will accrue to another budget.

Key considerations for national policy making on cities' economic role

The empirical analysis presented in Chapter 1 of this report demonstrated that African cities are productive, and that labour productivity is estimated to increase on average by 0.3% if the urban population increases by 10%. Cities also create benefits in a wide range of other important dimensions. At the same time, the potential of African cities is not fully realised, and major deficits in housing, infrastructure and decent work persist. This section discusses policy issues for maximising the economic role of cities, to be considered at the national policy level.

Urbanisation and economic growth are closely related across several dimensions, but the relationship between the two is complex and non-linear. Not all cities have similar levels of economic performance, and the measures needed to encourage economic development can vary from city to city. A host of factors contributes to urban productivity and helps to determine whether cities will reach their productive potential. The types of interventions and investments a city most urgently needs depend on its context, opportunities and the specific deficits it faces. The empirical literature on which factors determine the productivity of African cities is both extensive and preliminary, especially considering the complexity of factors at play and the difficulty of measuring their impacts accurately. Still, it is possible to say with relative certainty that some factors significantly affect the ability of African cities to achieve their productive potential.

Box 3.1. The literature on economic development in cities

Despite the extensive literature on the productivity of cities, studies on African cities and on cities in developing countries in general are limited. The table below presents a comprehensive overview of the literature on determinants of economic development in cities in developing countries, and forms the basis of the discussion in this section.

The table includes reports from international organisations such as the African Development Bank (AfDB), the International Monetary Fund, the OECD, the United Nations Development Programme (UNDP), the United Nations Economic Commission for Africa (UNECA), the United Nations Human Settlements Programme (UN-Habitat) and the World Bank, and think tanks such as the Brookings Institution and the International Growth Centre. It also includes empirical studies that measure the impact of various factors on urban economic performance (measured by firm productivity, wages, GDP, employment or structural transformation) specific to cities or to sectors that are typically urban, such as manufacturing. Creating an exhaustive list of these studies was not feasible, so the emphasis is on relatively recent studies.

Table 3.1. Literature on factors contributing to the economic performance of developing world cities

Factor contributing to urban economic performance[1]	Literature related to cities in the developing world
Human capital	Asmal et al. (2020[13]); Barro (2001[14]); Calderón & Servén (2010a[15]) (2010b[16]); Calderón, Moral-Benito & Servén (2011[17]); Chauvin et al. (2017[18]); Chen & Dahlman (2004[19]); Commission on Growth and Development, (2008[20]); Dinh, et al. (2012[21]); Dollar, Hallward-Driemeier & Mengiste, (2005[22]); Hasan et al. (2017[23]); Isaksson, (2007[24]); Kim & Loayza, (2019[25]); Lall, Henderson & Venables, (2017[26]); Newman et al., (2016[27]); Page et al., (2020[28]); Quintero & Roberts, (2018[29]); UN-Habitat, (2020[30]); Wei & Hao, (2011[31]); World Bank, (2004[32]); World Bank, (2009[33]); York & Fraser (1989[34]),
National infrastructure	AfDB, OECD & UNDP, (2016[35]); Amirtahmasebi, (2016[36]); Andres, Biller & Dappe (2015[37]); Asmal, et al. (2020[13]); Boopen (2006[38]); Calderón & Servén (2010a[15]); Calderón & Servén (2010b[16]); Calderón, Moral-Benito & Servén (2011[17]); Chen & Dahlman (2004[19]); Collier (2016[39]); Combes & Gobillon (2015[40]); Commission on Growth and Development (2008[20]); Escribano, Guasch, & Pena (2010[41]); Hulten (1996[42]); Isaksson (2007[24]); Lipscomb, Mobarak & Barham (2013[43]); McCulloch & Zileviciute (2017[44]); Newman et al. (2016[27]); Njoh, (2009[45]); Page, et al. (2020[28]); Paunov & Rollo (2015[46]); Quintero & Roberts (2018[29]); Seethepalli, Bramati & Veredas (2008[47]); World Bank (2004[32]); World Bank (2009[33]); World Bank (2013[48]); York & Fraser (1989[34])
Urban infrastructure	AfDB, OECD & UNDP (2016[35]); Arnold, Mattoo & Narciso (2006[49]); Aterido & Hallward-Driemeier (2007[50]); Aterido, Hallward-Driemeier & Pagés (2007[51]); Asmal, et al. (2020[13]); Bacon & Kojima (2016[52]); Bastos & Nasir (2004[53]); Collier (2016[39]); Commission on Growth and Development (2008[20]); Dethier, Hirn & Straub (2010[54]); Dollar, Hallward-Driemeier & Mengiste (2005[22]); Escribano & Guasch (2005[55]); Escribano, Guasch, & Pena (2010[41]); Hasan et. al. (2017[23]); Hommann & Lall; Iimi (2011[56]); Kriticos & Henderson (2019[57]); Lall, Henderson & Venables (2017[26]); Mensah (2018[58]); Metropolis (2019[59]); Page, et al. (2020[28]); Peters, Vance & Harsdorff (2010[60]); Rijkers, Söderbom & Loening (2010[61]); UNECA (2018[62]); World Bank (2009[33]); World Bank (2013[48])
Regulatory environment	Acemoglu, Johnson & Robinson (2001[63]); Bastos & Nasir (2004[53]); Commission on Growth and Development (2008[20]); Dethier, Hirn & Straub (2010[54]); Hallward-Driemeier, Wallsten & Xu (2006[64]); Isaksson (2007[24]); Kriticos & Henderson (2019[57]); McMillan & Rodrik (2011[65]); McMillan, Rodrik & Verduzco-Gallo (2014[66]); Newman et al. (2016[27]); Page et al. (2020[28]); Rodrik, Subramanian & Trebbi (2004[67]); World Bank (2004[32])
Corruption	Aterido, Hallward-Driemeier & Pagés (2007[51]); Bastos & Nasir (2004[53]); Commission on Growth and Development (2008[20]); Dethier, Hirn & Straub (2010[54]); Escribano & Guasch (2005[55]); Fisman & Svennson (2007[68]); Hallward-Driemeier, Wallsten & Xu (2006[64]); Newman et al. (2016[27]); World Bank (2004[32])
Finance	Aterido & Hallward-Driemeier (2007[50]); Aterido, Hallward-Driemeier & Pagés (2007[51]); Commission on Growth and Development (2008[20]); Dethier, Hirn & Straub (2010[54]); Dinh, et al. (2012[21]); Dinh, Mavridis & Nguyen (2012[69]); Dollar, Hallword-Driemeier & Mengistae (2005[22]); Rijkers, Söderbom & Loening (2010[61]); Page, et al. (2020[28]); World Bank (2004[32])
Economic sector composition	Abdel-Rahman & Fujita, (1990[70]); AfDB, OECD & UNDP, (2016[35]); Asmal, et al., (2020[13]); Commission on Growth and Development, (2008[20]); Gollin, Jedwab & Vollrath, (2016[71]); Henderson & Kriticos, (2018[72]); Isaksson, (2007[24]); Kriticos & Henderson, (2019[57]); McMillan & Rodrik, (2011[65]); McMillan, Rodrik & Verduzco-Gallo, (2014[66]); Page, et al., (2020[28]); UN-Habitat, (2010[73]); UN-Habitat, (2020[30]); York & Fraser, (1989[34])

1 Public finance is not listed here, although it is very frequently mentioned as a precondition to economically successful cities in reports on the topic. Finance, which is covered in Chapter 5, operates by enabling the other factors. Good governance is similarly mentioned in many reports and enables the other factors.

Cities become more productive as they increase in size, but also face major constraints

Agglomeration economies make larger cities more productive than smaller cities. This pattern exists globally and can also be found in Africa. However, part of the urban productivity advantage is lost in Africa, due to the higher costs of operating in cities. African cities are more expensive than those in countries with similar income levels, by a margin of up to 31% (Nakamura et al., 2016[74]). Industrial labour is more costly than in countries at comparable income levels in other regions, with few countries appearing to have a low labour cost advantage to support competitiveness in manufacturing (Gelb et al., 2020[75]). Because of lack of capital investment in the face of rapid population growth in urban areas, many African cities experience fragmented urban development, housing problems and lack of efficient and affordable transport systems, reducing accessibility of workers to jobs, for instance. For example, in Nairobi, passengers on Matatu (privately owned minibuses) can access only 4 % of jobs on average within 30 minutes, 10% within 45 minutes, and 20 % within 60 minutes. In Ugandan cities, 70 % of commutes are on foot, often for long distances (Grover, Lall and Timmis, 2021[76]).

The increase in urban costs is an inherent part of agglomeration economies. As a city grows, depending on the type and characteristics of economic activities and prevailing technology in production and connectivity, it reaches a point where costs and disamenities begin to outweigh the benefits of increasing size. However, in Africa, many cities appear to be arriving prematurely at this point. This is because they grow without commensurate investment in infrastructure and housing, and often with inadequate planning. Most primary cities in Africa are not large by global standards, but because of the speed and scale of urbanisation in the context of low-income levels and lagging infrastructure, continued urban growth increases urban costs and congestion that need to be mitigated (Henderson and Kriticos, 2018[72]).

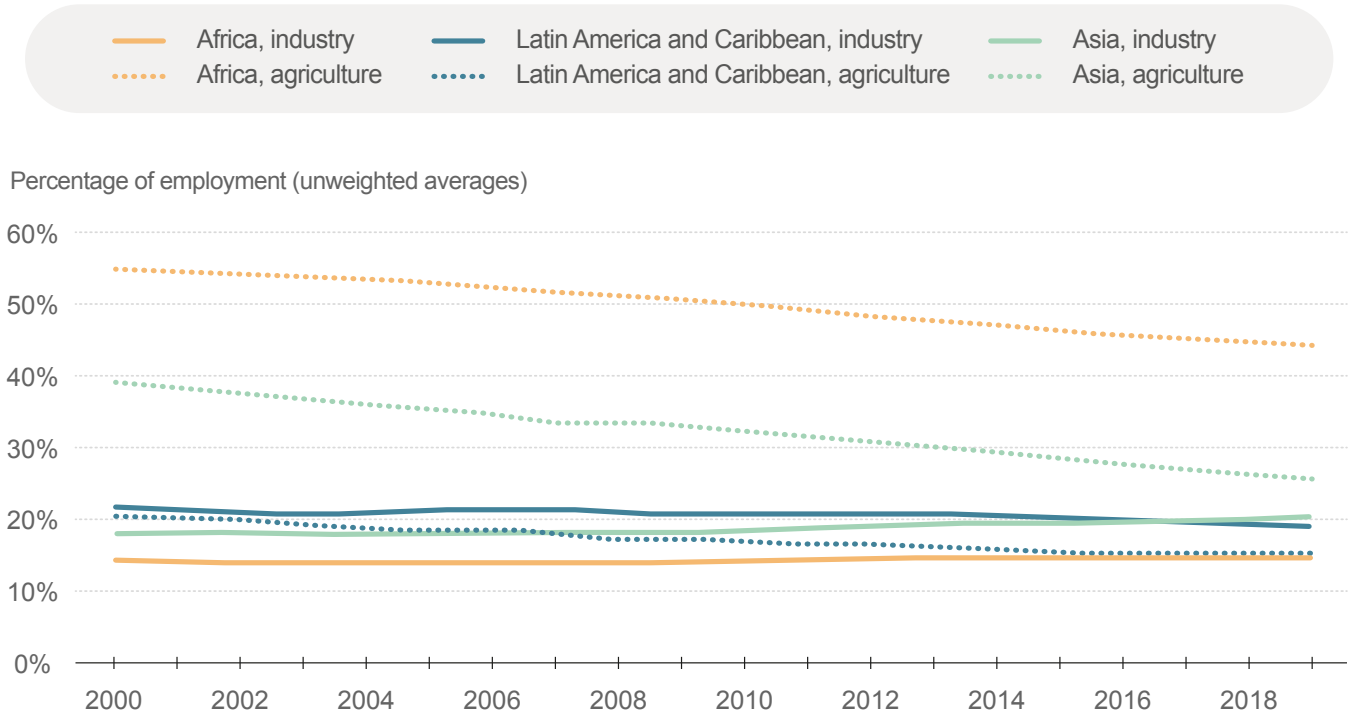
Given the manifold benefits of urbanisation that are documented in Chapter 1 of this report, policies that aim to reduce urban population growth would be an economically and socially harmful solution to high urban costs. Instead, more and more effective investments are needed. Urban development has often preceded planning, leading to settlements without connected street networks and weak public services. Land use is often inefficient and socially segregated, with valuable central locations only sparsely developed, while densely populated areas such as slums are underserved by infrastructure. Potential efficiency gains of density are not exploited due to poor land use planning, weak land administration and rigid zoning rules. The result is increasing urban inefficiency, reflected in unsustainable rises in living costs, including high commuting costs, excessively high housing-to-income ratios, high costs of doing business, and growing unemployment (UNECA, 2017[77]). These urban costs and disamenities diminish the net gains of agglomeration economies and urban density, and potentially deter firms and educated workers from moving to larger cities (Grover, Lall and Timmis, 2021[76]).

The economic power of cities hinges on the jobs they create

Workers in African cities are more likely to be employed in skilled occupations and are less at risk of underemployment than their rural counterparts. However, more than half of employed men and more than three-quarters of employed women are in unskilled occupations (Chapter 1). A large informal sector and unemployment are further major concerns. Creating more decent jobs is an overriding policy requisite for African cities.[4] Chapter 1 showed that the sector composition of urban jobs has remained largely stable throughout the last two decades. Despite some positive recent shifts, overall structural change due to urbanisation has frequently not increased growth as much as it might have, because most of the workers who moved out of agriculture have ended up in low-productivity service activities, mainly in the informal economy (McMillan, Rodrik and Verduzco-Gallo, 2014[66]).

In other regions, manufacturing has been a key element of productive urban job creation, but African cities have seen mixed results in the sector. The share of formal manufacturing jobs in total global value chains is as low as 10% in Ethiopia and Senegal, or as high as 20% in South Africa, compared to more than 35% observed in benchmark countries such as Bangladesh, Brazil, China, India and Malaysia (World Bank, 2020[6]). Employment in manufacturing has grown slightly in recent years (Figure 3.2). This is significant given the prior stagnation of manufacturing employment share at 7.2% between 1990 and 2010, and the relative decline observed in Latin America and the Caribbean during the same period. "Although the level of manufacturing activities is low in comparison to other regions, this increase in manufacturing employment in Africa is an important reversal to a long-run de-industrialisation trend that was documented for the period from 1960 to 2011" (Kruse et al., 2021, p. 8[78]).

Figure 3.2. Employment shares in industry and agriculture by region, 2000-19



Note Percentage of employment. Unweighted average of countries.

Source Data: World Development Indicators (WDI); Chart by authors.

In the past, urban job creation has not always been a priority. A central issue for national economic policy is to set priorities for public investment. This involves marshalling scarce resources in support of strategic economic sectors with the potential to drive growth and the creation of decent jobs. In African national development planning, cities have not always featured prominently among the locations of targeted economic sectors, leaving decent urban jobs as a critical national policy gap (UNECA, 2017b[79]). Policies targeting economic sectors that can generate large numbers of productive jobs will be central to achieving urban economic potential and national economic structural transformation.

The recent move to adopt a new generation of industrial policies is a promising move toward a potential renaissance of manufacturing jobs in many African countries. Even if they are successful, manufacturing firms, particularly those engaged in export trade, may not necessarily be employment intensive. A bifurcation emerged during the 2010s, when Africa appears to have recovered some ground. Countries classified as manufacturing exporters increased their output of manufactured products, but the share of employment in manufacturing declined, whereas non-manufacturing exporters increased employment, but not productivity. In the case of industrialisation in non-manufactures exporters, domestic demand, which has increased due to increase in agricultural income, public expenditures and external transfers, are likely to have expanded the market for (lower-quality) manufactured goods (Diao et al., 2021[80]).

While a strong manufacturing sector is important for the economic development of Africa, it is not sufficient. Modern, tradable services, which tend to cluster in urban areas, such as ICT-based services, tourism, transport and logistics, as well as agro-industrial production,[5] are in general high-productivity sectors with potential for boosting productivity and urban jobs (Newfarmer, Page and Tarp, 2019[81]). These sectors are especially important, because it is unclear to what degree African countries can pursue the development strategies of East and Southeast Asian countries that are heavily dependent on labour-intensive manufacturing. Since East and Southeast Asian countries still have strong comparative advantages in these sectors, it is difficult for other countries to replicate these strategies.

Employment in manufacturing in African cities has been driven by small firms. However, while small firms absorb labour, their productivity has not increased. Conversely, the employment share of larger, registered firms is declining, while their output share is rising. This observation aligns with those of Diao et al. (2021[80]), who observed that in Ethiopia and Tanzania, large firms have experienced productivity growth without an increase in employment, while smaller firms have absorbed workers without an increase in productivity. Related to this are apparent challenges in increasing firm size: micro- (fewer than 20 employees) and small enterprises (21 to 50 employees) rarely graduate to becoming medium (51 to 100) and large-size firms (<101). In Ethiopia, for example, 97% of formal jobs in manufacturing are created by medium and large firms (Mukim, 2016[82]), and according to one study, just 7% of those firms with between 10 and 30 workers employed more than 50 workers after ten years, suggesting high mortality and stubbornly low average sizes of small businesses (Shiferaw and Bedi, 2013[83]). Small firms benefit from locating in cities for all the reasons large firms do, including a large, concentrated customer base, access to products and services, and access to labour.

Cities can take steps to support the scaling up of firms, including improving the overall business climate and removing barriers such as access to finance and technology to small and micro enterprises (Bartik and Sotherland, 2019[84]). Formalising land markets can help small firms find urban locations to expand production. Similarly, productivity of micro- and small enterprises can be boosted with simplified regulatory processes, expanding access to finance to firms in the formal and informal sectors, and enhancing access to skills and capacity development, including lifelong learning for managerial as well as workforce levels.

Human capital contributes significantly to urban productivity

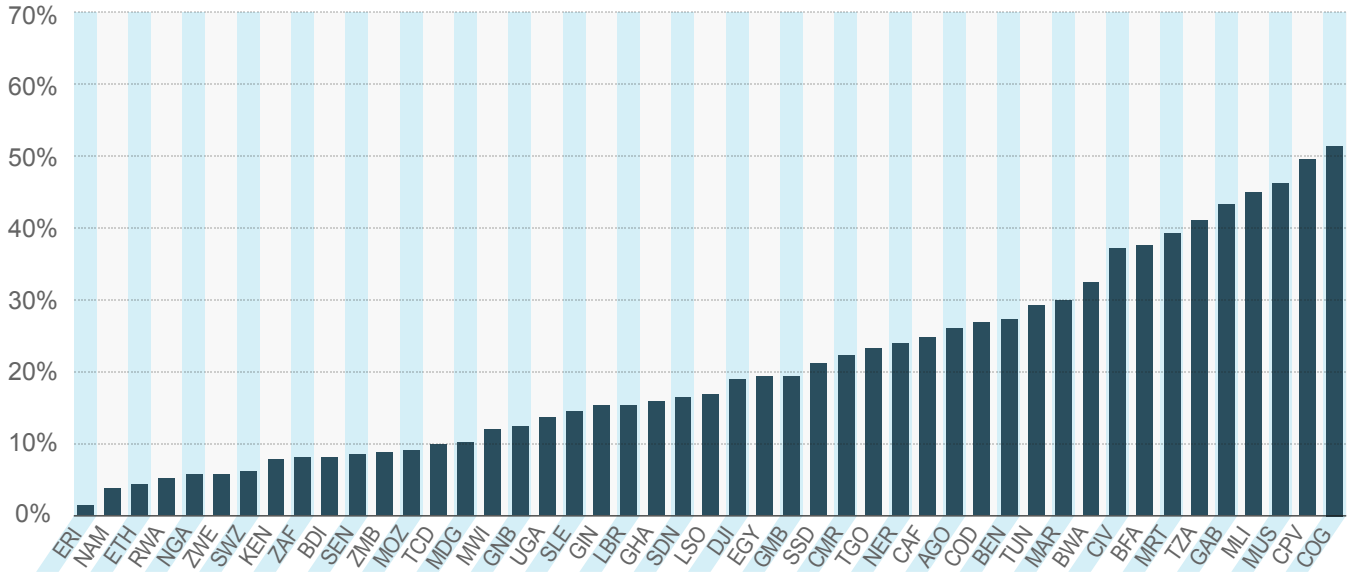
There is strong empirical evidence that human capital, especially education and skills, plays a role in urban economic performance, and the literature on African cities generally supports the conclusion that human capital matters (Table 3.1). Various studies suggest that human capital is even more important than infrastructure and other critical factors. In a study of 115 developing countries, Kim and Loayza (2019[25]) find that improvements in education were by far the biggest contributor to total factor productivity growth (accounting for nearly half) in the two decades between 1994 and 2014, above innovation, market efficiency, infrastructure and institutions. In a study of 88 countries, including 30 in Africa, Calderón, Moral-Benito and Servén (2011[17]) find that human capital is more powerful than infrastructure in predicting GDP per worker. Quintero and Roberts (2018[29]) find in a study of 16 Latin American and Caribbean countries that human capital outweighs the impact of density and connectivity to other urban markets in determining urban wages.

Data from Chapter 1 shows that levels of education are higher in cities than in rural areas, and that they rise as cities increase in size. Workers in large cities have more opportunities to learn new skills and accumulate work experience, the value of which persists into the future, including if they relocate to other cities (La Roca and Puga, 2017[85]). This has two policy implications: 1) investing in skills has considerable individual and societal returns; and 2) barriers to urban growth and thus accumulation of human capital, such as housing supply or provision of urban services, should be removed (Glaeser and Xiong, 2017[86]).

Skills amplify agglomeration economies, and agglomeration economies incentivise skill accumulation, because they lead to higher wages for skilled workers in cities (Glaeser and Resseger, 2010[87]; La Roca and Puga, 2017[85]). Empirical studies show that skilled workers, with good soft skills and experience, benefit most from being in large cities by earning higher wages (Bacolod, Blum and Strange, 2009[88]; Kriticos and Henderson, 2019[57]). Consequently, workers migrating from rural to urban areas invest in skills, because the impact of skills on workers' wages is higher in urban than rural areas.

In Africa, education levels in cities have been raised significantly in the past three decades. The number of years of schooling of people aged 18-29 in cities with more than 1 million inhabitants rose from an average of 6.5 years to more than 9 years between the 1990s and the 2010s (see Chapter 1). This is likely to have a lasting positive impact in the coming decades, given the economic and social benefits of a better education throughout a person's lifetime. Further efforts are needed, however, to increase the number of skilled workers. As shown in Figure 3.3, the shortage of skilled workers is still cited as a major constraint for firms in many African countries.

Figure 3.3. Percentage of firms identifying inadequate workforce skills as a major constraint by African country



Source (World Bank[89]), most recent year available by country; chart by authors.

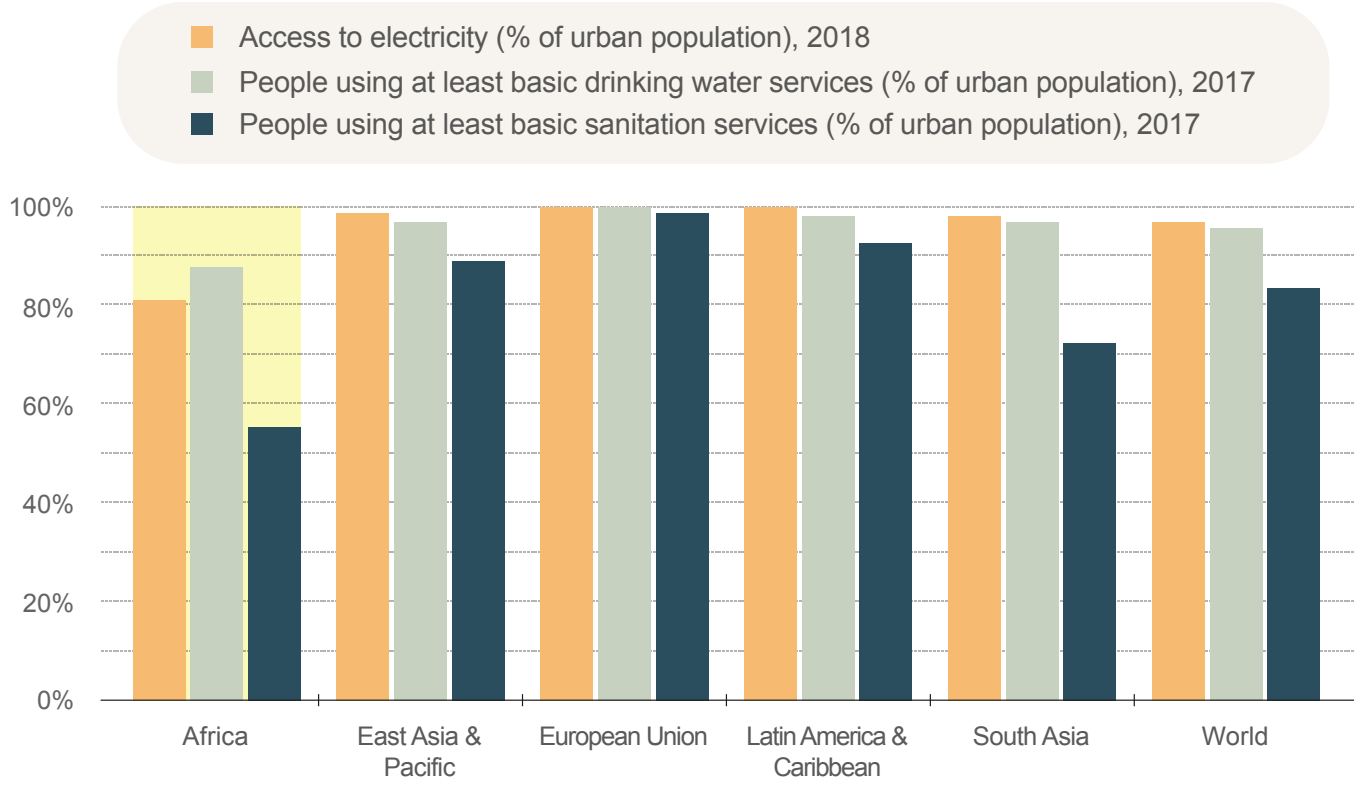
Increasing the number of skilled workers will also benefit less educated workers, including those in the informal economy. The tasks of skilled and unskilled workers are complementary. Larger numbers of skilled workers tends to improve the employment prospects and wages of unskilled workers (Eeckhout, Pinheiro and Schmidheiny, 2014[89]). Less educated workers benefit from this complementarity in various ways. They learn from their interaction with educated workers and become more productive; educated workers innovate and create new jobs that also benefit less educated workers. Meanwhile, educated workers earning higher incomes purchase more locally produced consumer goods and services, which creates jobs for less educated workers; and lastly, a reduction in the number of low-skilled workers pushes up the wages of those with lower skills (Winter, 2020[90]).

Infrastructure is critical for urban development

The benefits of urbanisation depend strongly on supporting infrastructure and institutions (Turok and McGranahan, 2013[91]).[6] While the data in Chapter 1 has shown that African cities generally provide better access to infrastructure than rural areas, and larger cities generally do better than smaller cities, many African cities still lag behind other regions in basic urban services (Figure 3.4).

Urban infrastructure, above all other factors except human capital, has the clearest support in the literature for its role in the productivity of developing cities. In the African context, the need for reliable electricity has been most thoroughly documented (Straub, 2008[92]). In a study of 26 African countries, Escribano, Guasch and Pena (2010[41]) find that electricity is the most important factor in firms' total factor productivity. While the importance of electricity access is well documented, it is often difficult to distinguish the effects of different dimensions from each other because the quality of various dimensions of infrastructure is closely correlated. Moreover, the most pressing infrastructure needs vary from city to city, and as electricity grid connections become more widespread, especially in large cities, where approximately 80% of households have access to electricity (Figure 3.4), closing gaps in access to other types of infrastructure in sectors including water, sanitation, transport and ICT will become increasingly important.

Figure 3.4. Urban access to electricity, water and sanitation by region



Source (World Bank[94]) World Development Indicators (WDI) ; chart by authors.

Many studies emphasise the importance of urban transport, which is fundamental for the connectivity of workers and firms and hence the generation of agglomeration economies (AfDB/OECD/UNDP, 2016[35]; Kriticos and Henderson, 2019[57]; Lall, Henderson and Venables, 2017[26]; Page et al., 2020[28]; World Bank, 2013[48]). Some reports discuss the role of mass transit in particular (Collier, 2016[39]; World Bank, 2013[48]; UN-Habitat, 2020[30]). While the theoretical case for the importance of transport is clear, empirical work on the role of intra-urban transport is less common. Nevertheless, the existing empirical data generally show the important effect of various elements of (public) transport infrastructure.

Infrastructure at the national level is also important, and not solely within cities.[7] This is particularly true for transport infrastructure, as productive cities must be able to connect to external markets (see Chapter 2). Other elements of national infrastructure, such as power generation and telecom backbone infrastructure, are also fundamental as a pre-condition for good intra-urban infrastructure. Infrastructure provision is another policy field where national and local responsibilities overlap and need to be co-ordinated.

Institutions and the regulatory environment affect urban productivity

The regulatory environment is widely recognised as important for urban productivity; but there is no consensus on which regulations matter most and in what contexts. Various studies focus on different elements of the regulatory environment, including labour market regulations, regulations to encourage competition between firms, protection of property rights (not specific to land rights, which are discussed below), and the ease of doing business in general. Corruption seems to be a significant constraint on urban economic performance in developing countries, although less so in Africa than in other regions (see sources in Table 3.1).

Regulations governing the ease of trade and logistics have also been found empirically to be a major factor in the performance of urban firms (Dinh et al., 2012[21]; Aterido and Hallward-Driemeier, 2007[50]; Dollar,

Hallward-Driemeier and Mengistae, 2005[22]; Escribano, Guasch and Pena, 2010[41]). This is not surprising, given that a common economic challenge among African cities is the prevalence of non-tradable sectors and the difficulty of creating jobs in more productive tradable activities, as well as the dependence on imports for many inputs to urban production. Addressing barriers to trade do not typically feature in the lists of top policy recommendations in major reports on African cities, an area that could potentially be strengthened in the development discourse on the topic.

Lastly, the ability of firms to access finance, which is closely linked to the institutional environment, is one factor whose importance in urban economic performance is clearly supported by the evidence (Table 3.1). Difficulties in accessing finance are especially constraining for small firms (Aterido, Hallward-Driemeier and Pagés, 2007[51]) and are also a major constraint for many local governments (see Chapter 5). Thus, they hinder the upscaling of firms and prevent local governments from investing in infrastructure.

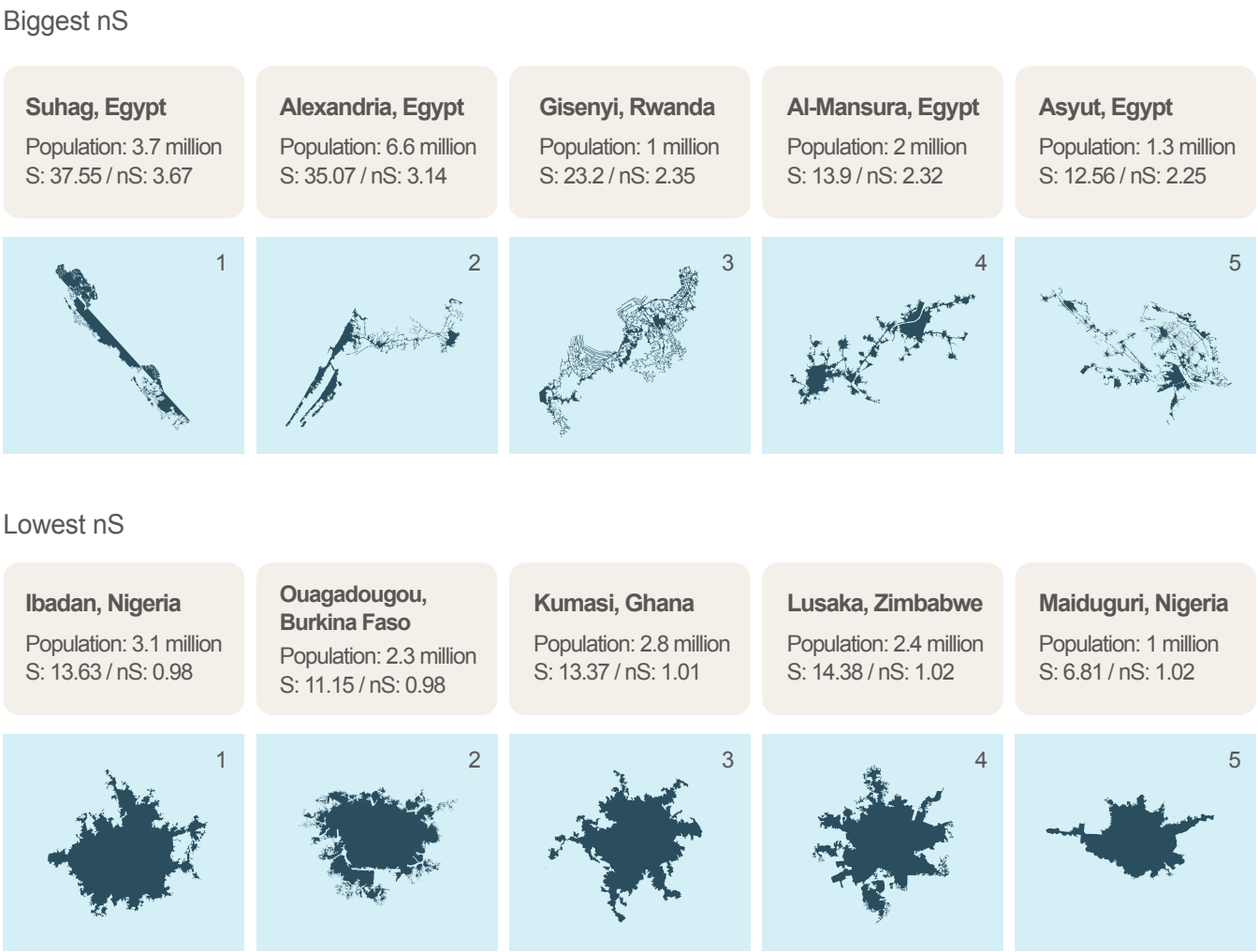
Urban form is important for the functioning of cities, but empirical evidence on the topic is limited

The benefits of cities arise from proximity and connectivity of economic actors. It is thus no surprise that urban form and urban planning are widely discussed in the development discourse as major determinants of the economic performance of African cities. Fragmented urban areas with large differences in population densities, long commuting distances within cities and a lack of good intra-urban transport prevent the emergence of agglomeration economies and reduce economic growth (Collier, 2016[39]; Lall, Henderson and Venables, 2017[26]; UN-Habitat, 2020[30]). Similarly, urban planners have long argued that many aspects of urban form have important consequences for the functioning of cities, including the shape, size and density of cities, their urban block layout and road grid, land use, and building types and design (Dempsey et al., 2008[93]). These aspects influence many determinants of urban productivity, including how people interact with each other, whether roads can transport a large number of users efficiently or are prone to congestion, and how costly it is to service the city with infrastructure.

While the impact of various dimensions of urban form receives more and more attention from researchers and policy makers, many of them cannot yet be measured systematically. Robust empirical evidence on the impact of most dimensions of urban form is scarce, in particular in developing country contexts. An exception is Harari (2020[94]), who finds that Indian cities with more compact urban shapes have higher levels of population growth and perform better in terms of accessibility and quality of life. The Africapolis database (OECD/SWAC, 2018[1]) contains data on the footprint of African cities as of 2015 and can be used to study the shape of cities using a methodology similar to that of Angel, Parent and Civico (2010[95]) and Harari (2020[94]). The average distance between any two points within the city is computed and normalised by the total area of the city,[8] so that it does not simply reflect city size. The more compact a city is, the shorter the average distance between two points within it. Figure 3.5 shows the footprint of the five African cities of over 1 million inhabitants with the longest average distance between two points and the five cities with the shortest average distance, respectively. Two patterns are notable. Cities with long distances do not form a round shape and have a discontinuous urban fabric, with many gaps between built-up areas. In contrast, cities with short average distances between points are rounder and have few gaps between built-up areas.

Figure 3.5. Urban form and its effect on population density

Large African cities with the longest (top row) and shortest (bottom row) average distance between any two points within the city



Note The top row shows the shape of the five African cities above 1 million inhabitants with the longest average distance between two points within their territory (adjusted for their area). The bottom row shows the shape of the five African cities of more than one million inhabitants, with the shortest average distance between two points within their territory (adjusted for their area). The urban footprint of all African cities can be downloaded on africapolis.org.
Note that S is a disconnected index that shows the average distance between pairs of random points within the city. nS is a normalized disconnected index defined as S divided by radius of the equivalent area circle, i.e. the radius of a circle that has the same area as the built-up area. The larger the value of nS, the more disconnected is the urban footprint of the city.

Source OECD/SWAC calculations based on (OECD/SWAC, 2018[1]), following Angel, Parent and Civico (2010[95]) and Harari (2020[94]).

Beyond compactness, many other dimensions of urban form have an impact on productivity and the functioning of cities. Transport-oriented development (TOD) is an important instrument for improving accessibility and reducing congestion, involving the construction of housing and commercial developments primarily along transport corridors. Where local governments do not have the capacity to implement transport-oriented development, preventing the unplanned development on land that will be needed for future transport corridors is an important short-term measure to reduce the future costs of infrastructure construction (Angel, 2011[96]).

Other important measures to create productive and liveable urban forms include creating well-serviced dense neighbourhoods in central locations. Density encourages interactions that create the innovations from which agglomeration economies arise. Dense neighbourhoods, however, need good infrastructure to function efficiently and provide liveable environments. It is possible to create highly productive and desirable neighbourhoods with densities of more than 50 000 inhabitants per square kilometre with the right planning policies and investment (e.g. providing effective public transport and constructing high-quality public spaces). However, similar densities in

a poorly serviced slum limit productivity and result in poor living conditions.

Likewise, it is important to create business districts and industrial areas that allow firms to locate close to customers, suppliers and competitors. In many cases, excessive single-use zoning, over-zoning and restrictive-use segregation create more drawbacks than advantages, because they encourage sprawl, increase travel distances and reduce accessibility. Under restrictive land use regulations, even when plots are planned and available, development becomes fragmented, precluding opportunities for firm clustering and future expansion and reducing firm competitiveness.

Improving urban form is not easy and often demands trade-offs. For example, low-income and low-skilled households in Kampala concentrate on "Mailo land", which has a customary tenure arrangement, because it is affordable and offers a dense social network. However, the tenure arrangement comes at the cost of economic efficiency. According to one estimate, converting all Mailo land in Kampala to leasehold would increase aggregate urban real incomes by 2% in the absence of localisation economies and 6.7% in their presence, particularly benefiting low-skilled workers. Income growth would occur because formalisation would make it possible to convert land to more productive uses. While the benefits from higher incomes would be significant, they could entail a loss of amenities to residents leaving the Mailo land, unless they were offered less expensive alternative housing solutions (Bernard, Bird and Venables, 2016[97]).

Land markets are likely to have a major impact on urban productivity, but empirical evidence is scarce

Effective land markets are another precondition for effective land use. Land is by far the most valuable production factor in cities (OECD, 2017[98]). Land markets are the main mechanisms for allocating land to its most productive uses, and their efficient functioning is a key factor for the economic development of cities. Without functioning land markets, misallocations of land to less productive uses will persist and will prevent the structural transformation of the economy, which is generally associated with massive changes in urban land use. For example, anecdotal evidence from Ethiopia suggests that "problems acquiring land often prevent firms … with 4–5 employees from growing into businesses with more than 10–15 employees. To do so, they would need a larger workspace connected to affordable and reliable utilities and offering reliable transport links to markets for inputs and outputs. Most small firms are located in the owner's home or in small workshops" (Dinh et al., 2012, p. 67[21]).

Land markets need to be well regulated because they typically have imperfections, such as large information asymmetries and potential monopolies. Informality prevents both the emergence of land markets and their effective regulation. Land titling and establishing up-to-date cadastres and land registries is a precondition for functioning land markets. Empirical evidence on the topic is mixed, however. Some preliminary evidence indicates that land tenure encourages productive economic activity (Bernard, Bird and Venables, 2016[97]; Field, 2007[99]) but other studies find no impact (Brasselle, Gaspart and Platteau, 2002[100]; Galiani and Schargrodsky, 2010[101]; Andreasen et al., 2020[102]).

A quote from (Do and Iyer, 2008[103]) rings true: "There is a certain amount of consensus among economists that better property rights institutions lead to improved economic outcomes. ... However, the empirical evidence on the importance of issuing formal titles to land is inconclusive, both on the overall effect of having property titles and on which dimensions of land rights are crucial," (p. 531). The absence of good empirical evidence on the subject does not imply that it is unimportant; it is more likely that it shows the difficulty of measuring and quantifying the impact of land markets. Still, the lack of empirical evidence is a concern, given the high priority that the issue receives among experts (e.g. Lall, Henderson & Venables, (2017[26]), and further studies on the topic are needed.

What matters most depends upon context-specific needs and complementarities

The issues discussed above include some of the most important factors determining the productivity of African cities. However, they do not exhaust the list of the issues policy makers need to address. The importance of various factors differs across cities, economic sectors and economic actors. For example, the performance of larger firms is more sensitive to access to electricity, corruption and the consistency of the regulatory environment, while small firms are affected more by access to finance and water outages (Aterido, Hallward-Driemeier and Pagés, 2007[51]; Aterido and Hallward-Driemeier, 2007[50]; Iimi, 2011[56]).

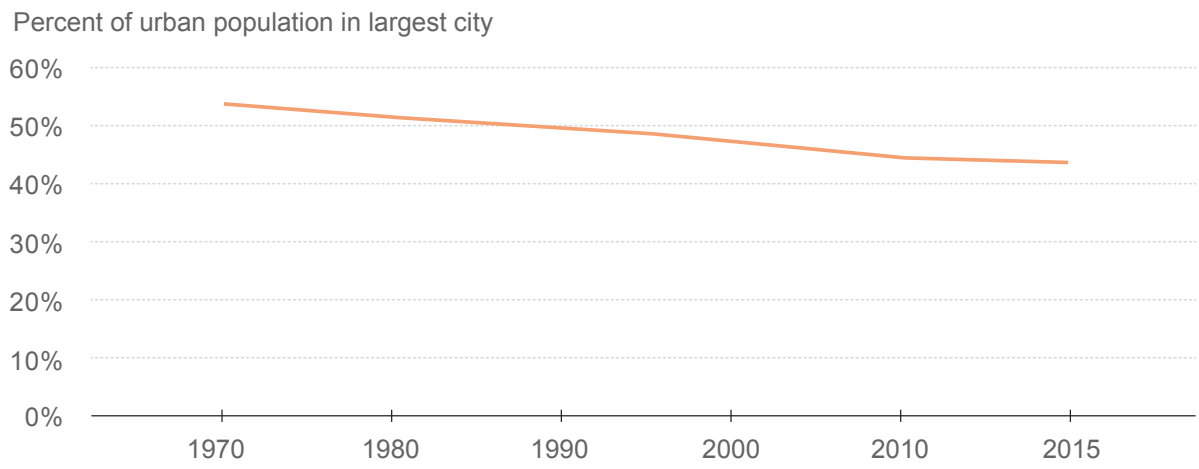
Many of the issues discussed above are complementary, with the effectiveness of a given measure in one policy area being influenced by measures in other policy areas. For example, the effectiveness of new planning policies designed to increase the density of the built environment in central locations depends on

the functioning of land markets and on the capacity to provide infrastructure in the more densely developed areas. Complementary policy measures and investments that are aligned in space, timing and impact will have synergies that are more powerful than isolated investments in one component or another. The factors examined here are interlinked, affecting each other and urban economic performance.

The system of cities drives production and influences regional inequalities

High urban primacy[9] is often a concern for policy makers who want to shift urban population growth to other cities and boost productivity through systems of cities. While primacy in Africa has been high historically, it has declined as income per capita and the number and size of secondary cities has increased. In 2015, the average share of the urban population living in the largest city in African countries was comparable to the global average and slightly lower than the average in Asia and Latin America.[10]

Figure 3.6. Unweighted average primacy across 54 African countries, 1970-2015



Source (OECD/SWAC, 2018[1]), Africapolis (database); chart by authors.

Although primacy is no longer exceptionally high in Africa, it is still important to support a balanced urban development that allows cities of all sizes to reach their potential. Secondary cities in Africa have grown to a size typical in other parts of the world, but they do not necessarily have the same economic and administrative functions. Ideally, large cities provide the productive benefits associated with diversity, while small and midsize cities tend to provide localisation economies characterised by single-sector clustering and specialisation. Skill- and technology-intensive firms tend to cluster in large cities. By contrast, firms in mature industries or standardised product lines and activities, or firms in land and labour-intensive sectors, tend to benefit from localisation economies and cluster in small or midsize cities (Duranton, 2015[104]; UNECA, 2018[62]). Smaller cities can be important hubs for rural areas and contribute to their economic development (Chapter 1). They can also be the seat of government agencies and host universities and other higher education institutions, offering other possibilities for economic development.

While primary cities in Africa are the most productive, they also suffer from negative externalities. Low levels of investment in infrastructure and weak institutions for managing urban growth prevent them from reaping the full benefits of population concentration. This raises urban costs to both workers and firms and negatively impacts productivity. Neither neglecting primary cities nor delaying investment in intermediary cities is a solution. Both types of cities are needed, along with a mix of practical policy solutions

such as establishing Special Economic Zones (SEZ) (UNECA, 2017[77]). Strategically selected intermediary cities should be promoted to relieve pressure from the primary city, to provide options for firms to locate and to facilitate factor mobility and churning between cities of different sizes, a fundamental pathway for dynamic productivity growth.

Many African countries have small populations and few large cities. Of 54 African countries, 14 have no cities with a population of between 300 000 and 1 million, and another 22 have only one city in that size range. Three policy priorities emerge: 1) improving the business environment in midsized cities; 2) increasing the economic role of small cities, in the context of the wider regional resource potential and economic linkages, including within agri-food system; and 3) overcoming economic fragmentation through economic and trade integration, to strengthen the roles of various cities in the larger regional urban system, especially between small countries where there are fewer prospects to diversify the national urban system. Policies affecting the functioning of labour markets, favouring the primary city, labour mobility and connectivity infrastructure will play a role (Duranton, 2015[104]).

Population growth in small cities of under 50 000 requires scrutiny. Small cities account for nearly one-quarter of the region's urban population, and they should be given due attention in terms of their potential role in economic productivity. Their proximity to rural areas could make them instrumental in reducing rural poverty, particularly because in many countries, agriculture and associated activities are an important part of the economy (Henderson and Kriticos, 2018[72]). As noted in Chapter 1, rural areas benefit from proximity to cities. In the context of urban networks and metropolitan areas, small cities could also benefit from the agglomeration economies of their larger neighbours, while avoiding rapidly growing urban costs (Camagni, Capello and Caragliu, 2016[105]). This potential will depend on connectivity to the broader urban system and the density and intensity of economic linkages with the rural economies.

Regional connectivity is also critical for Africa's cities, given that borders can significantly limit trade (Chapter 2). Integration of regional trade is likely to boost urban production and benefit urban consumers. In an integrated regional system, cities are less constrained by their size or function. Already, regional urban clusters are emerging, and further regional integration policies can support city development in the broader regional urban system.

The dynamics of connectivity and agglomeration can increase inequality, another issue that can be managed through strategic national policies. Early in the formation of urban agglomerations, firms may locate in particular regions or localities, thanks to both natural and human-made advantages. These may include factors like basic infrastructure, sheltered harbours, natural resources and access to input and output markets. In time, these initial advantages result in a self-reinforcing process that leads to the emergence of strong industrial clusters or agglomerations, and regional disparities between areas with high industrial concentration and the rest of the country.

However, simple investment in infrastructure is unlikely to reverse the fortunes of lagging regions and attract firms, especially in sectors that are already well established in other leading regions (Deichmann et al., 2005[106]; Schroeder, Lall and Schmidt, 2015[107]). Standard manufacturing that is already concentrated in large agglomerations is unlikely to move to peripheral locations and smaller cities. One approach for alternate development strategies are improved rural-urban linkages. Strategies for promoting development in peripheral cities and regions include removing barriers to factor mobility, to allow outmigration of excess labour to places with more opportunities for job creation and poverty reduction. Other options include investing in the endogenous productive capacity of localities according to their competitive advantages and broadly investing in human capital and social services to raise the standard of living where productive job opportunities are scarce.

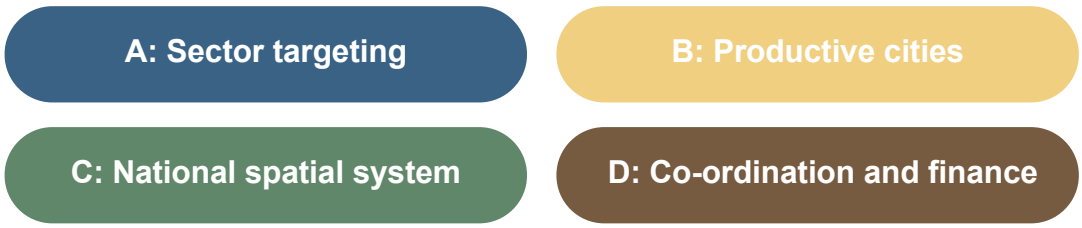
Integrating urbanisation into national economic planning: A policy framework

Countries' economic performance is determined by the economic performance of their cities. Establishing the fundamentals for economic growth in cities in terms of urban institutions, infrastructure and human capital is necessary, but not sufficient, for sustainable growth. Important policy trade-offs need to be managed, and hard choices have to be made. Productive cities are part of a broader urban system, where cities sometimes complement each other and sometimes compete with each other. Likewise, trade-offs between productivity and employment have to be made. In theory,

high-productivity cities are also cities with high wages and high employment (Lobo, Bettencourt and West, 2011[108]). In practice, the impact of productivity on wages and employment depends on the employment intensity of active sectors and their ability to stay competitive. This makes policy support for specific sectors or specific locations a strategic decision that involves a host of considerations, such as the balance between growth and spatial equity, the specialised profiles of cities, and the possibilities workers and firms have to move between cities.

Although urban productivity is a spatially bounded local phenomenon, its national implications cannot be overemphasised. Urban economic performance plays a growing role in determining national and regional development outcomes. Pairing national economic policy making with urban and spatial planning processes is therefore critical. Public and private actors must co-ordinate scarce resources to support activities that drive growth and facilitate the process of economic structural transformation throughout the development process. Given the cost of inaction, rapid action is essential. Cities and urbanisation are integral to structural transformation and should be given due consideration in national economic planning. National Development Plans (NDPs) should acknowledge and support the economic role of cities and their linkages. UNECA (2018[62]) proposes a framework in which four entry points are identified for bringing cities to the forefront of national economic planning: a) sector targeting, b) urban productivity, c) a system of cities and d) co-ordination and finance. A synopsis of this framework and the generic policy recommendations associated with it are presented below.

Figure 3.7. Four themes linking cities with national economic planning



Source (UNECA, 2018[62]), An Urban Lens on National Development Planning in Africa: Guidebook for policymakers.

Table 3.2. Key thematic national policy questions for policy makers

Sector targeting for job-rich urbanisation	Urban productivity
• Which economic sectors will create urban jobs and promote structural transformation? • Which economic sectors can create green urban jobs? • Which urban economic sectors have emerging growth opportunities under the AfCFTA? • Which economic sectors can create decent jobs specifically for women, youth and other disadvantaged populations? • Which economic sectors will leverage and harness urban demand for domestic sector growth? • How can cities add value to rural products through forward and backward linkages? • Where are firms and supply chains in priority sectors likely to be located? • What are the urban investment requirements specific to priority job-creating sectors?	• What level of investment in urban infrastructure is needed to make cities major job creators? • Which urban investments and programmes should be prioritised to leverage urban economic advantages and align with national development priorities? • What components of urban management require national-level support and/or co-ordination? • Where should cities focus their priority: business retention or growth, or business start-ups? • What specific barriers do micro and small enterprises face? • Where do opportunities lie for productivity increase in the informal economy?

National spatial system	Co-ordination and finance
• Where, in the national spatial system, can investment achieve the most cost-effective, sustainable economic growth? • What kind of investments are needed to promote the economic growth of the "missing middle" size class of cities? • Where, within the national spatial system, will target economic sectors generate growth? • Which cities and towns require which types of intervention to support target economic sectors (combining spatial targeting and sector targeting)? • How can industrial parks and SEZs leverage existing geographic advantages for competitiveness and facilitate spill-over benefits to the rest of the economy and society? • How can connective linkages best bolster value chains and a productive system of complementary cities and towns? • What strategies are feasible to promote development of low population density and remote areas? • How may the African Continental Free Trade Area (AfCFTA) impact city size distribution, urban jobs and growth?	• What level of government should have what function? • What are the legal powers that regional and local governments need to achieve their objectives? • What mechanisms can be established through the national development plan process to allow for co-ordination between the many public and private actors engaged in the development of cities? • What mechanisms can be established or strengthened to align economic planning, including implementation of AfCFTA, with urban and spatial planning? • How can subnational authorities be better supported to manage cities in ways that align with the national development plan? • Within cities and the national spatial system, how well is public and private investment currently co-ordinated and how can it be better aligned? • How can cities better leverage private sector contributions to investment? • How can the potential public revenue arising from cities be better harnessed for urban public investment? • What are the fiscal resources regional and local governments need to achieve their objectives?

Source (UNECA, 2018[62]), An Urban Lens on National Development Planning in Africa: Guidebook for policymakers.

Sector targeting for job-rich urbanisation

Africa needs job-rich, sustainable growth. Its relatively strong GDP growth in recent years has been largely job poor. African countries need increasing productivity, while expanding decent employment opportunities, and there can be tension between the two. A key policy challenge is finding the right balance, depending on national economic realities[11] (AfDB, 2018[10]). One of the central functions of national economic planning is to allocate resources to sectors that will drive employment-intensive and productivity-enhancing sustainable growth, while leveraging agglomeration economies.

Policy recommendations

1. Create decent employment at scale, by prioritising sectors with high urban employment effects and productivity potential.

Sectors vary in productivity and employment intensity, as well as in their urban location preferences. African countries[12] have adopted a new generation of industrial policies, with low-income countries focusing on light manufacturing (food, textiles, footwear, etc.), and middle income-countries in Northern and Southern Africa focusing on more technology-intensive and high-value added activities (Yong, 2014[109]). Policies adopted in recent years in Ethiopia, Kenya, Ghana and Mozambique show renewed emphasis on promoting export in high-value agricultural and horticulture products, labour-intensive manufacturing sectors such as clothing, textile, leather and leather products, through export-processing zones, industrial parks, financial incentives, capacity building, cluster development and direct public investment. Promotion of tradable services, including in finance, data processing, telecommunication and software development, is also an area of growing interest. Policy initiatives of some resource-rich countries target the development of domestic value chains in emerging and new industries, by linking domestic firms and foreign resource-extractive investors in the resource industry (Page, 2017[110]). Targeted investment in infrastructure, technology and skills, and the potential role of regional integration and SEZs play an important role in implementing these policies and shaping urban space. Urban job creation should become a central theme within these priorities.

2. Address the discrepancy between formal and non-manufacturing informal labour markets by improving skills.

Workers in the informal economy have limited access to skills and training opportunities. The smaller size of most informal enterprises and their lower profits leave owners in the sector with fewer resources to invest in employees. Micro-entrepreneurs are often time- and resource-poor. Boosting productivity in the informal sector will require publicly funded training and vocational education and lifelong learning opportunities, in line with SDG targets. Paid time for training during working hours is a recognised step toward enabling gender-equitable outcomes, because women typically

bear the major responsibility for unpaid labour in the family and household out of paid working hours.

3. **Increase firms' capacity to create jobs and boost productivity, by removing barriers to infrastructure and service provision, and modifying urban and land regulations.**

Credit constraints and other barriers, including technology, hold micro- and small enterprises back from graduating to middle- and large-size firms. These issues should be addressed to unlock their capacity to create jobs, while increasing average firm size and productivity. Removing barriers that limit the growth of even small firms in low-tech, non-tradable sectors such as retail, transport, construction and food services could open up growth potential, with major effects on employment in the aggregate.

4. **Pursue growth and employment opportunities in non-smokestack industries as an alternative pathway for structural transformation.**

Invest in non-smokestack industries and in-service sector industries with wide multiplier effects on the productive sector, such as information technology, finance and professional services (Newfarmer, Page and Tarp, 2019[81]). These sectors are crucial to the competitiveness of productive sectors including manufacturing, where service sector inputs account for a major share of the total value of the products, especially those for export.

5. **Maximise the sustainable employment effect of the construction industry by leveraging investment in infrastructure and housing.**

Unlocking the potential of the housing sector requires removing barriers in skills, housing finance, land and construction materials, such as cement and steel. Alongside job creation, early investment in sustainable construction and infrastructure will generate huge savings in energy and boost resilience. It is estimated that 900 million new urban residents will be added to African cities in the next three decades, and that two-thirds of the urban space Africa will have in 2050 does not yet exist. This means that African cities need to build twice as much, in one-third of the time that the existing infrastructure was built (Collier, 2017[2]). Investing in cities offers vast potential for employment, including in green jobs and sustainable development.

6. **Promote domestic sourcing of raw materials purchased by urban firms, particularly in sectors such as food processing.**

The share of food purchased from modern retail (e.g. supermarkets) is rising sharply. The sector has potential for major job creation in the food manufacturing and food services sectors, by increasing domestic agri-food value chain integration. Value addition and efficiency can be increased by reinforcing economic integration in the intermediating system linking food production and consumption. In addition, by lowering the cost of food in cities, efficient food value chains can help to increase the urban competitiveness of manufacturing.

Economically productive cities

Urban incomes are higher than rural incomes in Africa, as elsewhere. The gap is even larger at the household level, because a larger share of household members is in wage employment in cities than in rural areas. However, African cities have a long way to go toward realising their full potential for productivity and escaping a low-productivity equilibrium trap. Building productive cities requires good policies and plans, and adequate resources and institutional capacity to implement them. Managing urban growth in the context of rapid urbanisation, capital scarcity and capacity deficiencies makes the task particularly challenging. African countries should prioritise investment based on economic return and seek pragmatic policy solutions, which allow incremental improvement as resources and capacities permit.

Policy recommendations

1. **Improve urban competitiveness through infrastructure and service provision, serving both firms and workers.**

Urban infrastructure including electricity, communication, water and urban transport, affects the productivity of urban firms.[13] Connectivity, by developing affordable, multimodal transport systems, should be prioritised in the urban development process. Without an accessible multimodal transport system, distance and cost price a large segment of workers out of the labour pool, while growing private car ownership increases congestion, air pollution and greenhouse gas (GHG) emissions. Efficient public transport benefits firm productivity, as it helps to counter the negative externalities of urban density, and thus reduce the urban employment cost (Venables, 2018). SEZs are one way to provide firms with a competitive business environment in the short term, when upgrading the infrastructure of an entire city is not financially feasible. These zones should be integrated with the urban labour market to take advantage of the productivity dividend of cities.

2. Promote cities as centres of innovation and competitiveness.

Africa's economic future is tied to the ability of firms to innovate and compete in the local, regional and global markets. Countries vary in their industrialisation level and trajectory, with some aiming to acquire "traditional manufacturing capabilities", while others turn to services, and still others promoting new and advanced types of manufacturing through local entrepreneurs (Naude, 2019). In all cases, innovation and technological upgrading plays an important role. Under the right conditions, cities facilitate firms' access to technology, skills, capital and markets. They produce new ideas and are incubators for innovative firms. Developing this role requires a co-ordinated effort between levels of government, and engagement between the public and private sectors. National governments should invest in education and technologies such as information and communications, cultivate the role of cities as critical links to SEZs and universities, and as gateways to trade and foreign direct investment (FDI), and prioritise large cities as "nurseries" and hubs of innovation.

3. Promote effective land management systems.

Good land management systems promote sustainable urban development as well as trust in institutions and governance. Poorly managed land markets are a fundamental barrier to sustainable urban development in many African cities (Lall, Henderson and Venables, 2017[26]). Meanwhile, a lack of access to well-serviced industrial land is a bottleneck for firm growth (Dinh et al., 2012[21]). Multiple claims on land are common in many African cities, and speculation and title irregularities often prevent compact and connected development. As a critical asset, land is also associated with power and corruption, and suboptimal management can undermine trust in institutions and governance.

4. Promote practical planning and land-use regulations that support urban efficiency.

Planning processes and regulations, including land use and zoning rules, should not be burdensome. They should not limit firms' and households' choice of spatially efficient locations that balance the benefits and costs most important to the individual firm or household. Spatial layouts of cities should be evaluated in terms of whether they facilitate or deter proximity and connectivity between economic agents, and thus whether they increase or reduce agglomeration economies and well-being. Moreover, regulations on urban development should be responsive, enabling incremental development in sustainable patterns instead of restricting or delaying private and household development of urban land. Regulations should also be practical, with adequate capacity to monitor and enforce planning regulations.

5. Strengthen the capacity of urban authorities in providing an adequate supply of well-planned, buildable and serviced plots within a network of connected streets and other infrastructure.

Finance may be a constraint in providing infrastructure at a high level of density and quality right away. However, it will be critical to provide space and demarcation to allow development of streets and infrastructure in the future, with incremental densification as a city grows economically. African cities are 23% more fragmented than Asian and Latin American cities (Page et al., 2020, p. 7[28]), increasing travel times and infrastructure costs. Incentives should promote infill and discourage speculation, and serviced plots should be configured in a way that ensures good connectivity and enables incremental densification. Establishing settlements without a basic layout and street network can make service provision up to 12 times more expensive later (Campbell, 2018[111]).

6. Promote an effective institutional framework to govern and co-ordinate large cities at the metropolitan scale.

Many big cities need a mechanism that co-ordinates strategic investment in infrastructure like transport, and that harmonises policies and regulations in urban planning and land use at the metropolitan level. As large agglomerations grow, a framework is needed to prevent unhealthy jurisdictional competition, promote efficient service delivery, and finance metropolitan infrastructure and services.

A connected national spatial system

Economic policies, whether fiscal, monetary or commercial, influence the location of investment and economic activities and help shape the national spatial system. Often, however, the interactions between economic policies and spatial outcomes are not fully understood or anticipated. Space-blind economic policies or spatial planning that is divorced from economic and social realities can have costly consequences for long-term development. This applies to sectoral priorities and location decisions regarding SEZs and industrial developments, for example. Opening up new regions for mining or massive agricultural projects, or investing in transport corridors to encourage trade with neighbouring countries, all have spatial

implications that need to be carefully assessed and managed. Directing investment to the sectors and urban agglomerations where economic return is highest, while managing trade-offs between efficiency and spatial equity, is essential to establish effective and connected systems of cities that allow for sustainable growth. Building a connected system of cities is a slow process, partly because it is path-dependent. A connected national spatial system to meet today's needs requires sustained implementation of coherent policies across sectors (OECD/UN-Habitat/UNOPS, 2021[114]).

Policy recommendations

1. Target locations with sector policies, according to specific agglomeration economies.

Industries vary in their location preferences, depending on whether they benefit more from localisation or urbanisation economies. Industries with standardised production, especially those benefiting from localisation economies,[14] benefit from relocation to cities with a high concentration of economic activity in the same industry, particularly to mid-sized and smaller cities that keep urban costs low. This leaves room for primary or large cities to specialise in industries and services benefiting from urbanisation economies (Henderson, 2010[113]). SEZs should be connected to cities so that firms within them benefit from access to large labour pools; output and input markets; as well as industry-specific cluster benefits, while simultaneously, firms within the city benefit from the learning and knowledge spill-over effect of SEZs. In the short to medium term, it is important to invest in primary and large cities, because these cities will remain growth drivers for the foreseeable future.

Many primary cities in Africa are not large in global terms. The speed and scale of urbanisation in a context of low-income and lagging infrastructure development, however, makes it highly likely that continued investment deficits will have a negative effect on national GDP. At the same time, primary cities face increasing urban costs and congestion that need to be mitigated (Henderson and Kriticos, 2018[72]). African countries need to maximise the productive capacity of larger cities, while slowly investing in intermediary cities and connectivity infrastructure. This will increase linkages between cities' economic activities and emerging growth centres, gradually establishing a functional urban system.

2. Encourage economic and physical connectivity of small cities in a larger urban sub-system and economic regions.

Given the large number of small cities, enhancing the role of small cities as agriculture service and primary agro-processing centres is an important step. Large cities are more productive than small cities, but smaller cities can become growth drivers, given the advantages of their amenities, quality of life and specialised economic functions. This report shows that rural economies close to cities perform better than those farther away. The closest urban area for rural residents typically has less than 50 000 inhabitants, underscoring the importance of small cities in encouraging linkages with agriculture, and in providing the rural population with access to services, infrastructure and markets.

3. Promote labour mobility.

Labour productivity and wages vary widely across space, reflecting differences in industry and firm productivity. Productivity levels would rise substantially if workers moved from low- to high-productivity areas, but this can be complicated by a host of factors, including government policy on migration; strong place-specific tastes; high housing costs and disamenities that can offset the appeal of the higher wages of productive urban areas (Glaeser and Xiong, 2017[86]).

4. Invest in connective infrastructure, to strengthen links between cities and regional markets.

Many African cities are disadvantaged by geography, located far from seaports and international markets. This makes fast and efficient transport connections even more crucial. Connectivity is important both for export competitiveness and the price of imports, one of the factors that makes African cities disproportionately expensive. Inadequate transport infrastructure means that "trade costs in Africa are the highest in the world, stifling interregional trade" (Graff, 2018, p. 2[114]). The continent also scores poorly on logistics, and its digital connectivity, while improving, lags behind that of other regions. Digital connectivity can lower economy-wide transaction costs, increase financial inclusion, improve market information, and provide access to opportunities in growing service sectors that are delivered online. Costs related to cross-border trade are significant, and improving intra-regional trade integration holds major potential benefits for urban production and consumption (see Chapter 2).

Financing policy implementation and co-ordinating urban and economic policy

Mobilising resources is essential for meeting urban financing needs. Effective implementation of national economic plans hinges on the capacity to allocate and enable absorption of these resources across sectors and levels of government coherently. Poor co-ordination is a fundamental problem that underlies many disjointed urban investment programmes and dysfunctional cities.

Policy recommendations

1. Mobilise domestic resources at the city and national level to meet cities' infrastructure investment needs.

Cities require massive investments, but they also generate enormous resources. An array of instruments is available to mine these resources, but applying them requires good governance frameworks and subnational financial management capacity. Land value capture and leveraging the private sector are two entry points for improving resource mobilisation. No matter what financial instruments are used, there is a need for a substantial transfer of resources from the national level to meet the huge infrastructure investment needs of African cities.[15] Most tax instruments are assigned to central governments, and many urban capital projects, for example transport and public transport infrastructure and communication networks, require large investments upfront before they increase public tax revenues. Prioritising cities in national economic planning and budgeting is thus central to realising the growth potential of urbanisation.

2. Address the technical and institutional capacity challenges facing urban project preparation and management.

African cities lack capacity to prepare bankable projects and to implement them within the necessary cost and time. Small cities may need investment facilities that can pool scarce expertise and resources and bundle projects. Financing models and governance structures are needed to help different cities in a regional or urban cluster implement joint projects, such as public transport or road development. Finally, it is important to complement megaprojects (e.g. regional rail lines, port or energy projects), with small, localised projects (e.g. housing improvement schemes and local economic development initiatives), so local communities have access to the benefits of the megaprojects.

3. Co-ordinate investment between public and private sectors.

The government, firms and households need to co-ordinate. Cities generate externalities, and investments are discrete in time and space, creating an inherent need for co-ordination. Government, through its investment priorities in economic planning, can therefore crowd-in[16] private and household investment. When public and private sector actors co-ordinate their investment, firms follow infrastructure, and workers follow firms, creating a virtuous dynamic for growth. When public investment is followed by private sector investment, the return to public investment is enhanced, and an economic base for local revenues and services is created. A co-ordinated investment in infrastructure, housing and jobs has a far greater economic return than the sum of the components. Some examples already show that countries can make faster inroads into new sectors by co-ordinating resources from both the public and private sectors. Ethiopia's success in breaking into the global market for cut flowers offers one example. Government and the private sector met regularly at the highest level to identify and address barriers, maintained a public record of actions and monitored progress systematically (Page, 2017[110]).

4. Co-ordinate throughout the policy cycle at the vertical level, between national, subnational and sector levels; as well as at horizontal level across ministries, departments and agencies.

A mechanism to co-ordinate economic policies with urban and spatial policies is needed. For example, the AfCFTA implementation can create jobs in the tradable sector, but urban interventions are needed to boost the competitiveness of urban areas in which firms in the tradable sector are located. Mechanisms are context specific and cannot be prescribed, but in all cases, activities should be carefully sequenced; information and resource sharing should be encouraged; overlapping roles and responsibilities or mandates should be avoided; confusion and unhealthy competition or institutional rivalry between ministries, departments and agencies should be discouraged; and authority, resources and staffing to oversee processes involving a wide array of stakeholders, especially at the subnational level, should be provided.

5. Establish spatially disaggregated economic and social data to support policy, including on economic and investment planning.

Addressing the policy issues and trade-offs discussed above and contextualising the policy recommendations proposed require reliable and geographically disaggregated data. Standardised spatial units should be established for this purpose. Spatial disaggregation of economic data takes time and resources. It should begin with basic statistics, such as employment figures. Employment data by sector and cities, and firm size distribution by locations, are important to identify cities with potential for job creation and business start-up. Data on congestion, land market and housing will also be important, to track trends in urban cost and to detect fault lines in agglomeration economies. Data on urban investment against urban growth and metrics of access to services are necessary to monitor the capacity of cities to accommodate urban growth and demand by firms and households.

Notes

1 Building on what was originally proposed by United Nations Economic Council on Africa (UNECA, 2018[62]).

2 "Space-neutral" policies deliberately avoid being place-based or location-specific. In a "space-blind" scenario, policy makers or planners fail to fully consider the spatial effects of their decisions in trade, industry and investment.

3 According to data from the United Nations Department of Economic and Social Affairs World Urbanization Prospects (UNDESA, 2018[119]).

4 Youth unemployment is a particular concern. Youth unemployment in Africa ranges from 13% in Abidjan to 49% in Johannesburg (Metropolis, 2019[59]).

5 Such as cut flowers.

6 As summarised in Chapter 1.

7 Here, urban infrastructure refers to infrastructure in cities, including connections to utilities. National infrastructure refers to infrastructure that goes beyond the geographic boundaries of cities (e.g. national power generation) or is measured at the national level.

8 Formally, it is normalised by the radius of a circle containing the same area as the city.

9 Urban primacy refers to the concentration of a country's urban population in a single city.

10 According to the Urban Centres Database (Florczyk et al., 2019[122]), 40% of the population living in cities lives in primary cities in Africa, while the corresponding shares are 44% and 49% in Asia and Latin America, respectively.

11 Korea's employment elasticity of growth in its early stage of development and economic transition was 0.7; according to AfDB's estimate for the period 2000-2014, 18 of 47 countries in the sample (38%), had an employment-to-GDP elasticity of 0.41 or below. Another 20 countries (43%) had an elasticity of between 0.41 and 1.00 (AfDB, 2018[10]).

12 At the national level, at least 26 African countries have national industrialisation strategies, and 19 of these strategies target light-manufacturing industries (AfDB et al., 2017).

13 As discussed in Chapter 1.

14 Localisation economies are the productive benefits for firms arising from same-sector clustering. Urbanisation economies are the productive benefits arising from the clustering of a diverse mix of firms from many sectors. Urbanisation economies are high in large cities, but mid-sized cities can achieve localisation economies without the costs of large cities.

15 "African cities are dependent on central transfers for more than 80% of their operating revenues, and local government revenues have been estimated to account for less than 1% of GDP (Venables, 2018, p. 93[5]; Foster and Briceno-Garmendia, 2010[115]). The per capita budget of African metropolitan cities is USD 177, compared to USD 1 359 in Asia and USD 1 053 for Latin America and the Caribbean regions. The per capita budget for the relatively prosperous cities of Durban and Johannesburg are USD 911 and USD 681 respectively (Metropolis, 2019[59]).

16 Crowding in effect describes a circumstance in which government spending leads to an increase in private investments.

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4

The role of local governments in economic policy development

This chapter discusses the role of local economic development policies in Africa. It highlights the need to develop policies targeted to the local context and explains why local governments should play a greater part in supporting economic development. The chapter emphasises the increasingly important role of metropolitan governance in Africa and discusses strategic planning as an instrument for developing coherent policy packages. While it is impossible to develop one-size-fits-all solutions for local economic development policies, the chapter presents five principles around which targeted local economic development policies can be built.

In Brief

The role of local governments in economic policy development

- Cities differ from each other in many dimensions. They play different roles within the national economy, they are specialised in different sectors, their workforces have different skill profiles, they are served by different infrastructure and they have different natural endowments. Economic development policies at all levels of government need to be tailored to the circumstances of each city in order to be effective.
- Local governments are essential actors in economic development in Africa. Ideally, they play a key role in the implementation of national economic development programmes, and they pursue local economic development policies to strengthen economic growth. However, local policies often centre on service delivery rather than on economic development policy. Likewise, national governments do not always recognise the centrality of local governments in implementing national economic policy.
- Developing local government capacity and increasing decentralisation are both indispensable to accelerating and improving the quality of economic growth in Africa. Despite major decentralisation efforts in recent decades, African local governments still have low administrative and fiscal capacity. On average, only 14.1% of staff expenditure in the public sector in Africa is allocated to local governments. Likewise, local governments are responsible for only 11% of all public investment. Not only are these percentages less than half the global average, but they are also much lower than the average in low- and lower-middle income countries outside Africa. Many local governments lack the trained staff and the budget to pursue effective economic development policies. This has a detrimental effect on investments, revenue mobilisation, productivity and on the city's attractiveness to foreign investors. The consequences are felt not only at the local but also at the national level.
- Africa's urban population has been growing by 4.7% annually since 2000. As a result of this rapid growth, cities are expanding into the jurisdictions of neighbouring local governments and are becoming increasingly fragmented. The number of local government jurisdictions creates co-ordination gaps across local governments that make it difficult to establish coherent policies in urban areas. The negative consequences include sprawl, congestion caused by inefficient transport networks, and lower levels of productivity. Metropolitan governance arrangements are needed to co-ordinate policies across local governments within an urban area. Dedicated authorities at the metropolitan level, for instance, can be better placed to develop administrative capacity for specialised tasks such as the planning of complex infrastructure and the provision of public services and utilities.
- Effective strategic planning co-ordinates policies across sectors and ensures policy consistency over time. It helps to define common objectives among stakeholders and to determine policy measures to achieve these objectives. Not all strategic plans are effective, however. Unfunded commitments are a major reason why strategic plans are not implemented. Linking strategic planning to the fiscal decision-making process is therefore indispensable. The value of strategic planning extends beyond the plans it generates. The planning process allows administrations and external stakeholders to learn about effective policies to support the local economy. This builds capacity in the public and private sector. To realise these benefits, administrations should aim to conduct strategic planning internally.
- Local economic development policies need to strike a balance. They need to be aligned with national economic policy priorities, but they also need to be adapted to the local context. While it is impossible to provide a blueprint for strategies that work in every context, five basic principles are useful to bear in mind in building local economic development policies:
  1. **Co-ordinated policy packages** are more effective than isolated initiatives. Successful local economic development policies address multiple dimensions, and help to ensure that all the conditions necessary for developing economic activity are in place. Isolated policy initiatives often fail, because they can rarely remove all the bottlenecks that hold back economic development.
  2. Identifying and utilising a **city's competitive advantages** is a critical function of local economic

development policy. It is particularly important for economically lagging cities. To attract economic activity, cities need to identify attributes that distinguish them from their competitors and to use these attributes in their economic development policies. In many cases, advantages can result from complementarities and synergies with neighbouring cities. Cities should thus consider not only their own strength and weaknesses, but also their situation in the broader national and regional context.

3. **Specialisation** enables cities to generate economies of scale and increase productivity. It is especially important for small and mid-sized cities that lack the economic mass for multiple industries of significant size. However, not all kinds of specialisation facilitate economic development. Specialising in activities that generate value added for the local economy is particularly important for economic development. Cities that develop their own specialised economic profiles contribute to greater diversification at the national level. Most diversified national economies do not exhibit a spatially uniform economic diversity. Typically, they feature many cities with unique specialisations that create a diversified national economy.
4. At the local level, it is easier to stimulate economic development based on **existing economic activity** than to facilitate entirely new economic activities. Strategies that encourage innovation in existing economic sectors and that aim to increase the value added of existing economic activities are more likely to succeed than strategies that aim to attract new sectors. This also implies working with the informal sector to incorporate it into local economic development plans, since it constitutes a large fraction of the economic activity in African cities.
5. **Universities and other higher education institutions** are key actors for local economic development, because they create a skilled workforce and are a source of innovation. Many successful local economic development strategies are designed to ensure that universities and other higher education institutions contribute effectively to local economic development.

Local governments play a key role in economic development

Local governments are important actors in economic development. They are more familiar with the local economy than any other level of government, they are in close contact with local stakeholders, and they can ensure that policies are adapted to local conditions, promote specific advantages and address important bottlenecks. Few local governments, however, use all the tools at their disposal to support the local economy. Further efforts are needed to achieve higher levels of economic growth and well-being in all urban areas.

The importance of local governments in economic development does not mean that national governments have no role to play. National and local governments play complementary roles. Neither level can provide effective support for the economy without the contribution of the other. For example, only national governments can initiate major investment projects, such as the construction of an international airport. However, quite apart from such transformative projects, economic development relies on many small steps, such as the training of skilled workers, the design of an effective intra-urban road network and the efficient allocation of land to firms. Many of these tasks are among the core functions of local governments.

Moreover, national governments rely on local governments to implement many national economic development programmes. Such programmes may be in the field of education, infrastructure development or business development. For example, a programme that provides financial aid to small businesses to support capital investment might be better administered by local governments than by the national government. If it is successful, such a programme can attract tens or even hundreds of thousands of applications. A national administration would be quickly overwhelmed if it had to process all these applications, and it can be more effective if local administrations are responsible for

processing them. Moreover, since local administrations are more familiar with local businesses, they may be better able to judge the merit of an application than the national administration.

Many African countries are highly centralised, and their local governments have lower levels of responsibilities and resources than local governments in other economies with similar income levels. Not only does this limit their ability to pursue economic development policies, but it has a negative impact on economic development. Further decentralisation is an important measure for supporting economic growth throughout a country, thus facilitating economic development at the national level.

The high degree of centralisation also needs to be considered in evaluating the possible options. If local governments with weak capacity try to do too many things at once, they may spread their resources too thinly. In such instances, it can be preferable to focus on doing a few things well rather than trying to do everything at once. Before undertaking the activities discussed in this chapter, local governments should thus evaluate the administrative and fiscal resources needed and prioritise accordingly.

The possible ways that local governments can support economic development are extensive, but not every policy intervention is appropriate in every context. This chapter does not aim to provide a blueprint for local economic development policies for governments to follow. Instead, it presents principles for developing local economic development policies and discusses why these principles are relevant. Because the informal sector makes up a large fraction of the economic activity in African cities, these principles must be applied to the formal as well as to the informal sector in order to design effective local economic development policies.

It is impossible in a single chapter to cover a topic such as local economic development policy exhaustively. Readers who are interested in local economic development in Africa are referred in particular to the Local Economic Development Training Series by UN-Habitat and EcoPlan International (2005[1]), which contains guidance for practitioners, and also to the local economic development implementation survey by UCLG Africa (2018[2]), which covers the current state of local economic development policy across Africa.

A territorial approach is needed to increase urban economic development

Cities differ from each other in various dimensions. Their businesses are active in different sectors, and their residents have different levels of education and skills. They have different levels of infrastructure, and the nature and spatial scale of their economic interactions varies. Some cities are close to a large metropolis, while others are important market towns for rural hinterlands or are located close to important natural resources. Others are centres for long-distance cross-border trade. These characteristics, meanwhile, do not remain constant. Given the pace of urbanisation in Africa, cities' economic profiles can evolve rapidly.

The diversity of local contexts and the varying scales of economic and social interactions require a territorial approach to policy making. Policies need to be designed and targeted to the territories that are concerned by an issue, ranging from the neighbourhood to the metropolitan, national and continental level. Different sectoral policies need to be co-ordinated to account for the fact that their effects depend on each other as well as on the conditions in a city or region. Instead of applying sectoral policies uniformly across a country, a territorial approach to policy making thus uses cross-sectoral policy packages at varying geographical scales.

A territorial approach to policy making is not only needed to respond to specific local challenges, but also because the consequences of a given policy can differ strongly from place to place. Take for example the case of a policy aimed at improving the connectivity of poorly accessible towns close to large cities. Two towns in a metropolitan area might meet the conditions for inclusion in such a policy. One town is home to large disadvantaged groups, who are cut off from jobs because they are not easily accessible, which has led to a vicious circle of increasing social deprivation. A second town might be home to well-off residents for whom the lack of accessibility, or seclusion, is in fact perceived as desirable. Improved accessibility could enhance well-being in the first town, but it might reduce it in the second town. A space-blind policy that does not take into account the policy's impact on different cities or regions could result in inefficient investments and might make matters worse in some circumstances.

Local governments are key actors in implementing place-based policies. Their exclusive focus on a city gives them an intimate knowledge of local

circumstances and they are often well connected to local actors, such as businesses and educational institutions. By collaborating with each other, local governments can also implement policies across different geographic scales, depending on the policy issue at hand. Local governments are thus often better suited than national governments to targeting policies in the local economic context, identifying relevant stakeholders and co-ordinating actions among them. These advantages become more relevant the more specific to the local context a policy decision is.

Many problems cannot be addressed by local governments alone. Often, different levels of government need to become active in addressing issues that fall within their policy domain. For example, setting up a new system of schools for vocational training might require framework legislation and funding from the national government, while local governments would have to build and operate the schools. Effective multilevel governance is essential for implementing place-based policies (OECD, 2019[3]). Moreover, national governments need to implement place-based policies and territorially differentiated policies, such as national urban policies discussed in Chapter 3 (see also OECD/UN-Habitat (2018[4])).

Even strong place-based and territorially differentiated policies by national governments are only a complement, not a substitute, for the role of local governments. National governments are unlikely to be able to achieve sufficient policy differentiation on their own. Partly, this is a simple capacity issue. National administrations would quickly be overwhelmed if they had to devise specific policies for each city and region in a country. Beyond capacity constraints, informational constraints can be even more important. It is more difficult for policy makers in national ministries to grasp the local context fully than for local policy makers. They usually live in the capital, at a distance from the city in question, they lack local contacts, and their work obliges them to deal with a large number of cities and regions, rather than focusing on a specific place.

Local economic growth calls for decentralisation and capacity development

Local governments can only play their important role if the right legal and institutional frameworks exist and if they have sufficient fiscal and administrative resources. Almost everywhere, local governments have only those powers that are explicitly granted to them by the national government or, in some federal countries, by the respective state governments. Equally important are the fiscal resources that local governments control and the way they raise revenues. Whereas local governments in some countries have the power to raise a wide range of taxes and to take out loans or to issue bonds, they are almost entirely dependent on transfers from the national government in other countries (OECD/UCLG, 2019[5]). Finally, it matters whether local governments can use their powers and resources effectively. Given the comparatively small size of most local administrations, administrative capacity is an important constraint on their ability to conduct effective local economic development policies.

The institutional environment for local governments in Africa is improving

Local governments in Africa operate in challenging environments. They have very low levels of resources and poorly defined roles and responsibilities. On average, the African countries for which data is available spend only 14.1% of their staff budgets on local government. In Benin, the share is 3%. By comparison, the global average for that percentage outside Africa is 29.4% (OECD/UCLG, 2019[5]). Local governments in Africa also face other constraints on basic resources that prevent them from operating effectively, such as shortages of basic IT equipment. In Nigeria, 38% of civil servants in the federal government have regular access to a computer. By contrast, the share of Nigerian local government employees with access to a computer is just 6%, and local governments on average have internet access only on 3% of workdays. In Ethiopia, the percentages are higher, but still low, at 8% and 21%, respectively (Mo Ibrahim Foundation, 2018[6]). Five out of 18 local governments in Nigeria surveyed by the Mo Ibrahim Foundation (2018[6]) even report having no access to electricity. The same report, however, also documents instances of decentralisation that led to improved resource access and better service delivery by local governments.

While resource shortages remain critical, the institutional environment for local governments in Africa has been improving. Only seven African countries had institutional environments that were favourable or somewhat favourable to local governments in 2012, but by 2018, this had increased to 16. Nevertheless, the institutional quality remains unfavourable or somewhat unfavourable in 34 countries, and some countries have actually regressed in their institutional environment

(UCLG Africa/Cities Alliance, 2018[7]). Improvements have been noted in particular in the area of capacity building, as well as in frameworks to monitor and evaluate the performance of local governments. In contrast, the favourability of legislative frameworks has slightly deteriorated, as new constitutions were adapted that are less favourable to local governments, and as planned reforms to strengthen the role of local governments have been postponed.

Further decentralisation is necessary

Despite improvements in the institutional environment, the ability of local governments in Africa to develop and administer local economic development policies is constrained by a lack of administrative and fiscal resources (both in own source revenues and in transfers from higher levels of government). As long as local governments lack the basics of modern administrations, such as information and communications technology (ICT) and the staff trained to use it, they will not be able to establish effective local development policies. Providing the resources and developing the capacity for local governments is thus indispensable. Because administrations learn by doing, even governments with weak administrative capacity should attempt to develop local economic development policies if they have the opportunity to do so.

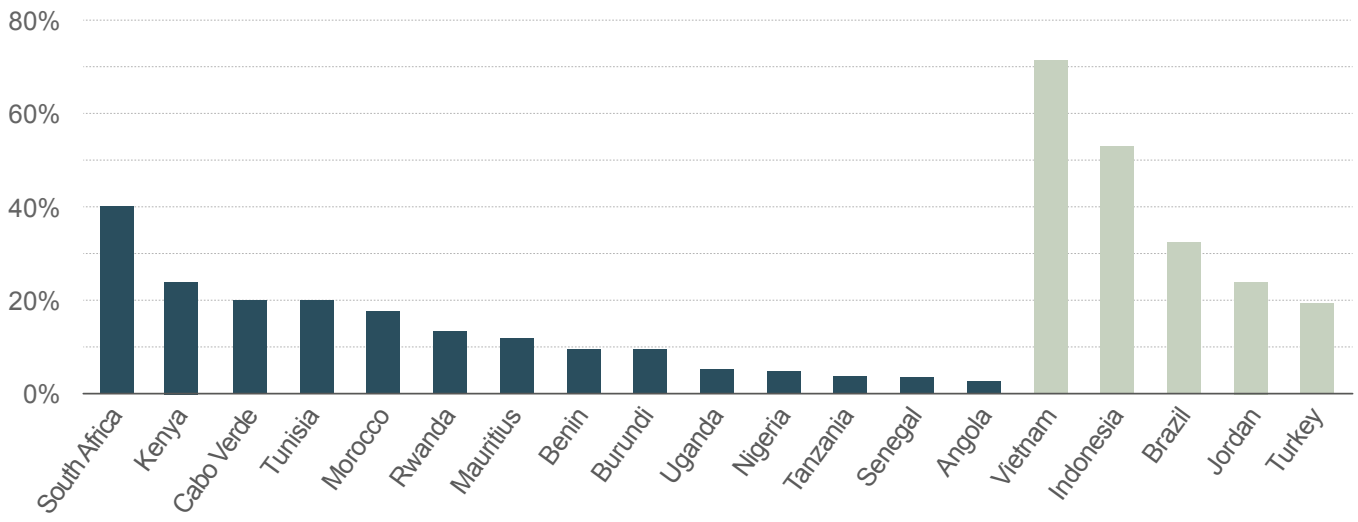
The reason local governments' resources in Africa are so much lower than national governments' is partly due to the fact that wealthier countries tend to be more decentralised than poorer countries (Bodman and Hodge, 2010[8]). Most African countries, however, have an exceptionally low degree of subnational autonomy, even compared to other countries with similar income levels (OECD/UCLG, 2019[5]). Most African countries undertook decentralising reforms in the 1990s and 2000s to strengthen local government (Crawford and Hartmann, 2008[9]). Meanwhile, deconcentration measures were initiated in many countries (Riedl and Dickovick, 2010[10]).[1] Despite these efforts, African countries are still heavily centralised. In the 14 African countries for which data is available, local governments are responsible for only 11% of all public investment (Figure 4.1). In contrast, local governments in low and lower middle-income countries outside Africa are responsible for 34% of all public investment, which corresponds roughly to the global average. This may in part be due to the fact that most African states gained their independence only in the 1950s and 1960s. It is possible that consolidation of the national government was the priority, and that embarking on decentralisation was a less urgent concern.

Given the low level of fiscal and administrative capacity, further reforms to strengthen local governments are indispensable if they are to participate fully in local economic development. Yet, even within the current framework, local governments can play a greater role. Rodríguez-Pose and Tijmstra (2007[11]) argue that despite their capacity constraints, the conditions to pursue local economic development policies are in place in most administrations of large African cities. Smaller administrations face more severe capacity constraints, but they can often make progress towards more effective economic development policies by making economic development a prime political objective.

Strengthening the fiscal capacity of local governments is perhaps the most important step for enabling local governments to pursue more active economic development policies. Chapter 5 of this report discusses the issue in detail and provides examples of how national governments can use public funds to provide resources to local governments.

Figure 4.1. Local government share of total public investment

African countries and select non-African middle-income countries



Note All African countries for which data is available and select emerging economies are shown, for 2016 or the latest available year.

Source (OECD/UCLG, 2019[12]) World Observatory on Subnational Government Finance and Investment.

Designing and implementing policies at the right geographical scale

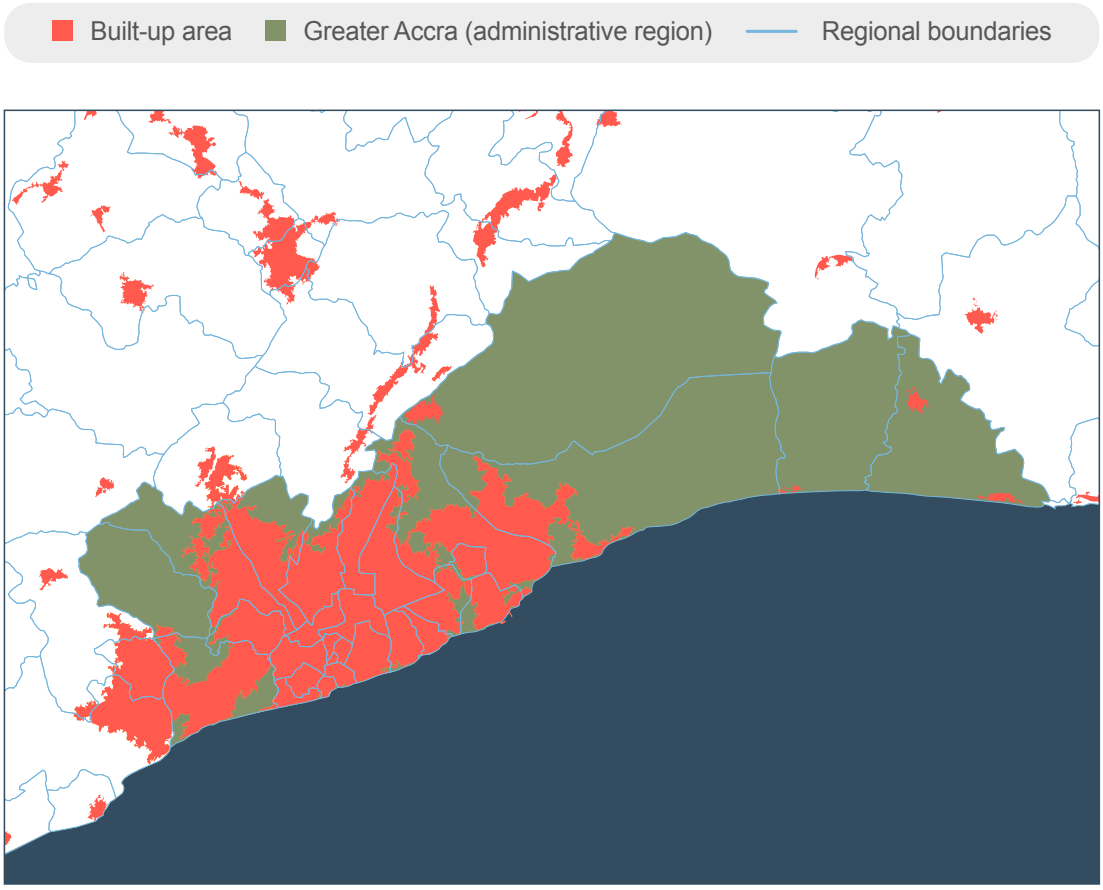
Designing and implementing local policies at the right geographical scale is essential for their success. While it is natural for local politicians and administration officials to focus on the jurisdiction for which they are responsible, this is often not the appropriate scale for a policy. In large urban areas, the jurisdictions of local governments often cover only a part of the urban area. In such a situation, local administrative boundaries do not correspond to the daily realities of residents and businesses. Workers commute daily from one local jurisdiction into another and may do their shopping in yet another jurisdiction. Likewise, firms have customers and suppliers and recruit their workers from the metropolitan area as a whole. In such cases, co-ordinating policy among local governments is essential for governing a metropolitan area effectively.

Administrative fragmentation increases the importance of metropolitan co-ordination

Most metropolitan areas are broken up into many local government jurisdictions. In Africa, administrative fragmentation of metropolitan areas is increasing rapidly. The accelerated growth of urban populations has meant that built-up areas expand into the jurisdictions of neighbouring local governments. The extension of public transport networks, and higher rates of car and motorcycle ownership, have also increased suburbanisation. Cities are thus growing in space even faster than in population, which has accelerated the spread of the urban agglomeration across multiple local jurisdictions.

Accra, in Ghana, is one typical city broken up into many local government areas. In Ghana, districts are the most important level of local government. Its more than 250 districts, with an average of more than 100 000 inhabitants, they are of average size by international standards, and are responsible for such policies as development planning, education, basic infrastructure provision and land-use regulation (Ghana Local Governance Act, 2016[13]). Map 4.1 shows how Accra's built-up area is spread across 30 districts. The two metropolitan districts in the city, meanwhile, are divided into sub-districts (Adusei-Asante, 2012[14]) and the city has started to grow into two neighbouring regions, increasing the number of actors involved in its governance.

Map 4.1. Built-up areas and local government jurisdictions in Accra, Ghana



Note Built-up areas with more than 10 000 inhabitants (2015) are shown in red; boundaries between regions are shown as blue lines; and boundaries between districts as black lines.

Source Administrative boundaries provided by Ghana Statistical Services (GSS) through Humanitarian Data Exchange (https://data.humdata.org/dataset/ghana-administrative-boundaries), built-up areas obtained from Africapolis (www.africapolis.org).

Administrative fragmentation in metropolitan areas makes policy co-ordination important for several reasons. First, many policies require measures that need to be implemented in several local jurisdictions. This concerns in particular transport infrastructure and land-use planning policies, but also many economic development policies (OECD, 2015[15]). For example, a planned large-scale housing development will only be successful if residents are able to reach good jobs within a reasonable commuting time. In practice, this can mean that the location of the housing development must be co-ordinated with the upgrade of a road and the creation of a bus rapid transit connection that runs through several municipalities to reach the city centre. Moreover, the activities at an industrial site in a neighbouring municipality might need to be limited, so that it does not affect environmental quality in the new residential area.

In practice, municipalities co-ordinate their policies most often in the fields of land use and development planning, economic development policy and transport planning. A lack of co-ordination can create bottlenecks and dysfunctionalities, such as increased congestion, long commutes and inefficient land-use patterns, which affect the economic performance of a metropolitan area. These negative effects become worse as administrative fragmentation increases. For OECD countries, estimates show that metropolitan areas with twice as many local jurisdictions per 100 000 inhabitants have 6% lower productivity levels on average (Ahrend et al., 2014[16]).

A second reason for co-ordination among local governments within metropolitan areas is the creation of economies of scale in service provision. Many public services that are provided by local governments can be delivered at a lower cost when they are delivered

at a certain scale. For example, it can be cheaper for several local governments to work together to organise their waste management or water provision, rather than each developing their own solutions. Establishing such co-ordination can be easier within a stable framework than on an *ad hoc* basis. Moreover, co-operation between local governments can help to improve the quality of local administration. Larger local governments with more administrative capacity can provide specialised administrative services to nearby smaller administrations that do not have the capacity to take care of them themselves. Such models of asymmetric administrative service provision are used by many OECD countries to account for differences in administrative capacities across local governments.

A third reason for co-ordination among municipalities is to reduce so-called "beggar-thy-neighbour" policies by local governments. The term describes policies that are used by local governments to achieve gains for their jurisdiction at the expense of neighbouring jurisdictions. For example, a local government might try to clear a slum without providing its residents alternative housing solutions. This displaces the slum population to other parts of the metropolitan area without solving the problem, not only harming the affected slum dwellers but creating problems for the jurisdictions to which they are displaced. Increased co-operation of local governments in a metropolitan area reduces the likelihood that they will engage in such mutually harmful policies.

Box 4.1. How to define functional urban areas

The OECD uses the concept of functional urban areas to provide a harmonised definition of urban areas and provide an indication of the scale across which metropolitan governance matters most. A functional urban area consists of an urban core and a surrounding commuting zone (OECD, 2012[17]). The urban core is a contiguously built-up area with a population density of at least 1 500 inhabitants per square kilometre and a population of at least 50 000 inhabitants. The commuting zone consists of all surrounding municipalities from which at least 15% of the working population commute daily into the urban core. While these thresholds are necessarily arbitrary, they provide a good approximation of the extent of the economically integrated urban area.

Applying the definition requires data on commuting flows, which is not available in many countries. In these cases, it is possible to approximate the extent of the commuting zone around an urban core based on typical commuting distances and the distribution of population around an urban core (Moreno-Monroy, Schiavina and Veneri, 2020[18]).

Metropolitan governance arrangements vary widely

No single best-governance arrangement exists to ensure policy co-ordination across local governments and levels of government. The most straightforward solution for administrative fragmentation would be a merger of local governments into larger units that correspond more closely to the actual footprint of the urban area. In some places, this can be an effective solution. South Africa created metropolitan governments in six cities, for example, by merging multiple local governments. The reorganisation was part of an ambitious decentralisation reform intended to overcome the spatial segregation in South African cities that was a legacy of apartheid (Pieterse, 2017[19]). However, such reforms remain rare. Experience shows that many countries struggle to create effective unified metropolitan governments, because mergers of local governments often meet resistance from local stakeholders, including local politicians, local administrations and the local population. In such cases, it is important to create the institutional arrangements necessary for policy co-ordination in the absence of a unified metropolitan government.

Where amalgamations of local governments are impossible or undesirable, other solutions have to be

found. Usually, these involve co-ordination arrangements for a limited number of policy areas within the responsibilities of local governments, in particular for spatial planning and transport policy (Ahrend, Gamper and Schumann, 2014[20]). Globally, a wide variety of institutional arrangements exist to ensure policy co-ordination. They range from "soft" co-ordination bodies that serve primarily as a forum for exchange among local policy makers to metropolitan authorities that take over some of the functions of independent local governments (OECD, 2015[15]). The decision-making structures of such bodies, their legal responsibilities and their revenue raising and spending powers vary widely. As Haas and Wani (2019[21]) show, all approaches have advantages and disadvantages. The right choice of an institutional arrangement depends on a variety of factors, including the responsibilities of local governments, their administrative capacity, the size of the metropolitan area and its fragmentation into several local jurisdictions.

One of the most important characteristics of metropolitan governance arrangements is the difference between voluntary and mandatory co-operation. Voluntary co-operation relies on mechanisms that facilitate exchange and co-operation between local governments, but do not oblige them to find a mutual position. It works well if all actors involved have an interest in co-operating, and it has the advantage that it is a flexible form of co-operation, which can be quickly adapted to newly arising issues. However, voluntary co-operation is not effective if the actors are not willing to co-operate, due to diverging political or personal interests. Moreover, voluntary co-operation leaves all legal responsibilities with individual municipalities and does little to overcome capacity bottlenecks within local administrations. In policy areas where local governments have insufficient administrative capacity, it can be more effective to delegate responsibilities to a dedicated metropolitan authority. This can then build the administrative capacity needed to perform advanced functions, such as complex infrastructure planning, more easily than local governments (see OECD (2015[15]) for an in-depth discussion of how to structure statutory co-operation arrangements).

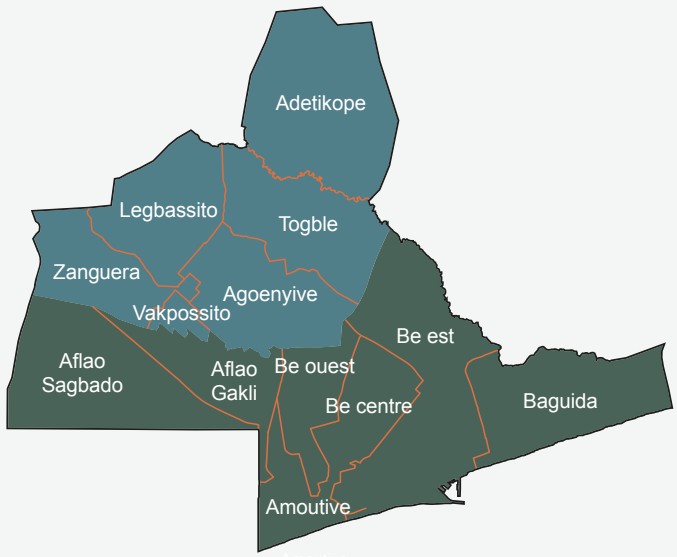
Despite the multitude of approaches and the wide range of advantages and disadvantages associated with each approach, the evidence shows that some degree of policy co-ordination at the metropolitan level is better than no policy co-ordination at all. Studies for OECD countries have shown that metropolitan areas with metropolitan bodies in charge of policy co-ordination have lower levels of sprawl and residents who report higher rates of satisfaction with public transport systems by approximately 12 percentage points. The benefits of improved policy co-ordination are also reflected in higher levels of productivity, as metropolitan authorities reduce the "productivity penalty" of administrative fragmentation by approximately 50% (OECD, 2015[22]).

Box 4.2. Metropolitan governance in Lomé, Togo

Lomé, the capital of Togo, has seen several important institutional measures facilitate a coherent development of the metropolitan area. Since 2010, several strategic documents have been prepared to guide public policies. The Development Strategy for the Horizon 2030 (*Stratégie de développement urbain du Grand Lomé à l'horizon 2030*) provides a joint vision for the development of the metropolitan area. The Strategic Plan for the Development of Greater Lomé (*Schéma directeur d'aménagement et d'urbanisme (SDAU) du Grand Lomé*) is intended to guide urban development and public investment. With a budget of XOF 177 billion (approximately USD 320 million), the plan focuses on improving the drainage of flood-prone neighbourhoods, widening roads and revitalising central districts.

In 2019, the Autonomous District of Greater Lomé (*District Autonome du Grand Lomé*) was created by the national government. It is a metropolitan government responsible for the territory of the 13 municipalities of the Greater Lomé area (Map 4.2). It covers an area of 425 square kilometres, home to approximately 2.4 million inhabitants. The newly created administration is responsible for sanitation, environmental protection, spatial and urban planning, economic development, as well as the construction and management of schools.

Map 4.2. Municipalities and prefectures in the Autonomous District of Greater Lomé, Togo



Source (Programme Solidarité Eau, 2019[23]).

To fund its operations, the Autonomous District of Greater Lomé can levy taxes (notably property taxes) and receives a share of the revenues from other fees and taxes. Moreover, it has the authority to take out loans to finance investments. The governor of the Autonomous District of Greater Lomé has the rank of a minister and participates in Cabinet meetings. He or she is appointed by the national government, just as half of the members of the governing council. Only the remaining half of the members of the governing council are appointed by the 13 municipalities within its jurisdiction. While this arrangement ensures close political alignment of the metropolitan authority with the national government, it limits its accountability to the local population.

Sources (République Togolaise, 2019[24]), Loi No. 2019-018 du 15/11/19 Portant attributions et fonctionnement du District Autonome du Grand Lomé; (Jeune Afrique, 2016[25]), Togo : le ministre de l'Urbanisme veut améliorer les conditions de vie des habitants de Lomé, https://www.jeuneafrique.com/mag/363545/politique/togo-ministre-de-lurbanisme-veut-ameliorer-conditions-de-vie-habitants-de-lome/; (French China, 2013[26]), Togo : un schéma directeur pour faire du Grand-Lomé un pôle d' attraction en 2030, (http://french.china.org.cn/foreign/txt/2013-12/03/content_30776701.htm); District Autonome du Grand Lomé, https://dagl.tg/.

Strategic planning for local economic development

Strategic planning is probably the most important activity for developing successful local economic development policies. Effective strategic plans ensure policy consistency across governmental departments and external stakeholders as well as over time (UN-Habitat, EcoPlan International, 2005[27]). It is not only the plan itself that matters, however. The planning process is equally important because it is an opportunity to define common objectives to learn about the local economy and to connect stakeholders. This section provides a brief overview of the importance of strategic planning for local economic development.

Economic development is the consequence of efforts by many actors, including private businesses, different levels of government and various departments within a government, other public and semi-public organisations such as universities and international donors, as well as civil society. Many of the efforts of these actors are complementary, which means that the actions of one actor enhance the positive effects of the actions of another actor. Conversely, the absence of an action by another actor can create a bottleneck that renders another policy ineffective even if it is otherwise well designed. Therefore, co-ordinated policy packages are more effective than individual policy initiatives (see below). Strategic planning is a tool that can help formulate and co-ordinate such policy packages.

The purpose of strategic planning is to create a common understanding of the current situation, to define common objectives among all stakeholders and to devise steps for achieving the objectives. To fulfil these functions, strategic planning must be a collaborative process in which all stakeholders are represented, rather than a top-down process in which a local government presents a strategy without giving other stakeholders a chance to influence it. In particular, it is important to give an adequate voice to participants in the informal economy, which are often underrepresented in the policy-making process despite their importance in the economies of African cities.

Box 4.3. Implementation and evaluation of local economic development policies in Botswana

In 2010, Botswana initiated the Local Economic Development Planning and Implementation Project (LED Project). Its objective was to create a national Local Economic Development Framework and build the institutions necessary at the national and local level to systematically develop and implement LED policies. The project covered eight dimensions, including capacity development, the creation of guidelines for LED planning and setting up systems to finance the implementation of LED policies and to co-ordinate stakeholders at national and local levels. Elements of the project were rolled out nationwide, but all eight dimensions of the project were introduced only in four pilot districts.

In 2018, the outcomes of the LED Project in the four pilot districts were evaluated (Ogwang, 2018[28]). The evaluation concluded that the pilot districts had mostly made good progress in setting up local economic development strategies. The two main bottlenecks were connecting the local economic development strategies with existing administrative processes and implementing them.

The evaluation highlights the need to link the planning process to the policy-making process. The best-designed local economic development strategies will be inefficient if they are not carried out. Ensuring implementation of local economic development strategies should be a key aspect of the planning process. A potential implication of this argument could be that it is preferable to limit the scope of a local economic development strategy if it increases the probability that it will be implemented.

Source (Ogwang, 2018[28]), Local Economic Development Project Evaluation. Final Report.

The range of policies that should be covered by local strategic planning depends on the responsibilities of local governments. In many instances, land-use planning and transport policies are among the most important policies covered by strategic plans. It is no surprise that strategic planning is often the responsibility of metropolitan authorities and serves as a tool of policy co-ordination across local jurisdictions (OECD, 2015[15]). However, other policies, such as skills policies and regulatory policies, can be equally important.

Beyond contributing to the co-ordination of policies by different actors, strategic planning is important to ensure policy consistency over time. Many economic development policies take years to become effective. If a city makes the strategic choice to encourage economic growth in a certain sector, it may invest in specific infrastructure, develop new training programmes in collaboration with technical colleges, build an industrial park and engage in targeted promotion to attract foreign direct investment. Such policies cannot be implemented at once, and one-time initiatives are likely to fail. A strategic plan that guides policies over at least five to ten years helps ensure the consistency of policy necessary to carry out advanced local development policies.

Using strategic planning to guide future policies also has an inherent advantage, in making it easier for businesses to plan ahead. In many instances, a predictable policy environment is one of the most important factors in businesses' investment decisions. A firm is more likely to invest in a new regional headquarters, for example, if it knows that the chosen location is linked to a public transport network that will grow progressively over the years. An effective strategic plan that guides infrastructure development over extended periods can provide this certainty. A strategic plan can thus have positive economic effects even before the first policy measures that it foresees are initiated. Of course, this positive effect emerges only if businesses trust that the measures in a strategic plan will be realised. Public trust in the willingness of local governments to adhere to their own plans is indispensable.

Box 4.4. Policy co-ordination with external actors outside the strategic planning process

Beyond the strategic planning process, local governments have a range of other options available to facilitate co-ordinated measures by several actors. In some cases, local governments may use incentives to ensure co-ordination and co-operation among stakeholders. Funding or regulatory approvals can be made contingent on whether several actors co-operate with each. For example, local governments may only invest in infrastructure that primarily benefits an industrial firm if the firm commits to co-operating with a nearby technical college on a vocational training programme. Often, however, local governments rely primarily on their power of convocation. They may set platforms for dialogue between actors (such as business roundtables), arrange hearings and consultations, and use their connections to introduce actors to each other. Importantly, policy co-ordination is a two-way process. It can also imply that local governments adjust their policies to align them better with other actors. In many instances, local governments should consult stakeholders when designing policies and adjust their decisions based on the feedback collected in the consultation process.

Strategic plans are only effective if they are aligned with funding decisions

In all contexts, strategic planning and fiscal decisions must be closely aligned with each other, because most policies can only be implemented if sufficient funding is available (OECD, 2019[3]). Unfunded commitments in strategic plans are a major reason for their failure. The strategic planning process and the fiscal decision-making process thus need to be linked to each other, with the goal of aligning strategic planning and funding decisions.

As major funding decisions are always political decisions, strategic plans must reflect the political priorities of the key funders. Unless they do so, it is unlikely that funding decisions will correspond with strategic plans. It is important to keep in mind that strategic planning does not aim to replace political decision-making by governments. Instead, it has the objective of finding effective solutions for implementing policy priorities of governments and aligning them with the objectives of other stakeholders.

Self-discovery improves the quality of local economic development policy

Strategic planning also contributes to another, often underappreciated, dimension of the policy-making process – the process of learning about what is effective. Although local policy makers are generally well informed about their cities, it is unlikely that they have all the knowledge required to prepare effective local economic development strategies. They might not know all relevant economic conditions in their city, nor are they necessarily aware of all economic opportunities and the conditions that are required to use them. Entrepreneurs tend to have a better knowledge of economic opportunities than civil servants, but even they are often not aware of new economic opportunities. Hausmann and Rodrik (2003[29]) argue that entrepreneurs underinvest in economic discovery because they reap only a fraction of the value of discovering a new economic opportunity, while most of it accrues as value to society.

The importance of developing administrative capacity on economic policies gives the strategic planning process another value that goes beyond the plans that are produced by it. The planning process is a key opportunity for policy makers to learn about the local economy. The insights gained in the process are important for many other policy decisions beyond those directly associated with the strategic plan. Therefore, local governments should aim to producing strategic plans internally and use external expertise only in limited ways. Outsourcing the preparation of plans to external consultants forgoes many of the learning opportunities associated with the planning process.

Maximising the value of learning that is associated with the strategic planning process is another reason to involve external stakeholders, such as businesses and universities extensively in the planning process. Not only does a greater involvement of external stakeholders help local officials collect more information about the local economy, it also creates an opportunity for stakeholders to learn. For example, it can give businesses the opportunity to better anticipate policy priorities, to learn about applied research conducted at a local university or to engage with businesses in other sectors. Any of these activities may lead to new partnerships or innovations that have commercial value and strengthen the local economy.

The content of local economic development policies

Local economic development policies must fulfil two important roles. On the one hand, local governments are essential for the implementation of national economic development programmes. National administrations lack the capacity to carry out programmes throughout a country. They must thus rely on local governments to carry out many of the measures typically included in national programmes. For example, local governments may decide to process applications for targeted aid to small businesses. Due to the potentially large number of requests, the national administration would be quickly overwhelmed if it had to process all applications.

On the other hand, local governments need to pursue their own complementary economic development policies. While these policies must be aligned with national policies, they must also reflect local circumstances, including the local skills of the workforce, the availability of infrastructure and the roles and responsibilities of different levels of government as well as their administrative and fiscal capacities.

Due to this complexity, it is impossible to provide blueprints for successful local economic development policies that could be adopted anywhere. The more closely policies respond to both national priorities as well as specific local opportunities and challenges, the more likely they are to be successful. This section discusses five principles that can guide the formulation of local economic development policies.

Co-ordinated policy packages are more effective than isolated policy measures

Economic development requires the right conditions in many dimensions. Factors such as good infrastructure, effective institutions, an adequately skilled labour force and a customer and supplier base are all essential conditions for economic development. The absence of only one of these factors can create a bottleneck that prevents economic growth. It also implies that governments do not have any silver bullets to facilitate growth. In most circumstances, an isolated investment in any of the factors mentioned above will have a limited impact, because bottlenecks in other dimensions will persist that prevent the investment from realising its potential benefits. In a nutshell, this means that:

> *having good roads but no electric power leaves a place unattractive for private investors (Duranton and Venables, 2018[30])*

Local economic development policies thus need to be multidimensional. Instead of pursuing individual measures, policy makers should aim at pursuing co-ordinated policy packages.

A co-ordinated policy package consists of a range of measures in several policy areas that aim at a common objective. Take for example the case of a local government that tries to attract an industry in a specific sector. As a first step, a local government could dedicate land to a new industrial park. Without accompanying measures such as providing road and electricity to the area, the project is almost certain to fail. Even a well-serviced industrial park, however, cannot attract businesses if other conditions are unsuitable. In many situations, governments should thus take additional measures to increase the likelihood that it can result in a success. Depending on the context, governments might advertise the industrial park to international investors. They could also create a contact point within the local administration to help companies navigate the administrative processes required to obtain the necessary permits. If the lack of a skilled workforce is a bottleneck, a local government could arrange a training programme at a vocational college, in co-operation with the companies that will locate in the industrial park.

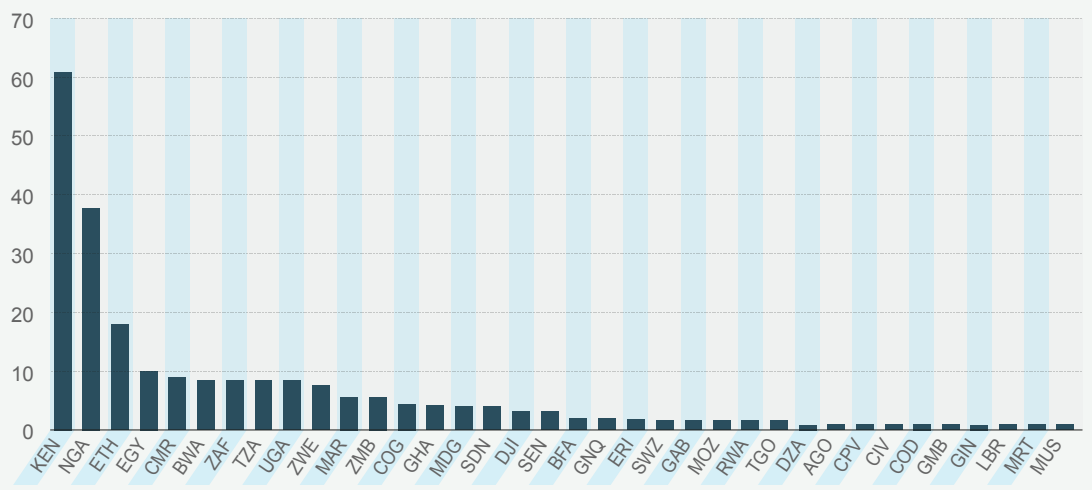
Co-ordinated policy packages are valuable because their impact is likely to be larger than the sum of the effects of the individual measures. In practice, however, local economic development policies frequently consist of individual policy measures that are implemented in an unco-ordinated fashion. Partly, this is because competing interests among politicians and administration officials make it hard to agree on a common set of policy objectives along which policies can be aligned. Partly, it is also because it is more difficult in practice to develop co-ordinated policy packages than in the stylised example above. However, in many cases, a lack of strategic planning as discussed in the previous section is responsible for an *ad hoc* use of individual measures.

In contrast to many other issues, local governments with lower administrative capacity are not necessarily at a disadvantage in developing co-ordinated policy packages. Smaller administrations with fewer activities are easier to co-ordinate than a large administration engaged in many complex tasks. Moreover, the setting of common priorities across an administration is generally a political choice that does not depend on administrative capacity to the degree that the implementation of policies does.

Box 4.5. Special economic zones as tools for multidimensional policy interventions

Special economic zones (SEZ) are a tool for implementing co-ordinated policy packages within geographically confined areas. Often, they are subject to economically more favourable legal conditions than the rest of the country, feature enhanced infrastructure provision and are governed by an improved administration. SEZ are used to attract investment and facilitate the emergence of economic clusters. They are widely used throughout Asia, where more than 4 000 have been established. By contrast, UNCTAD (2019[31]) reports only 237 SEZ in Africa, most located in Kenya, Ethiopia and Nigeria.

Figure 4.2. Number of special economic zones in Africa, 2018



Note: Number of special economic zones established by law.

Source: (UNCTAD, 2019[31]), World Development Report: Special Economic Zones.

While the framework legislation for SEZ has to be established by national governments, an SEZ can be an important instrument for local governments. In China, the country that uses SEZ most extensively, prefecture-level municipalities receive permission to host an SEZ from the national government. A local government appoints an administrative committee, which manages the SEZ on its behalf, for example, by providing infrastructure and regulating land use. Such locally managed SEZs greatly contributed to economic development in the early stages of China's economic transition in the 1980s, even if their impact in subsequent decades was weaker (Wang, 2013[32]).

The performance of SEZ in Africa has been mixed. In his comprehensive analysis of SEZ in Africa, Farole (2011[33]) emphasises a factor for the success of SEZ that is particularly important from a subnational perspective. Many SEZ have been unsuccessful because they were located far from existing infrastructure or targeted industries for which the necessary skills base was unavailable. To avoid these shortcomings, the location of SEZ should be decided not on political considerations but on where they can complement existing economic advantages.

Cities' competitive advantages should be used to encourage local economic development

Across countries, the distribution of economic activity is an important factor in their comparative advantages. However, at the subnational level, absolute advantages play a greater role. The idea of comparative advantage is a key concept in international trade that was originally described by Ricardo more than 200 years ago (Ricardo, 2015[34]). It implies that a country does not necessarily have to be the most efficient producer of a product to develop a successful industry around that product. Its industry has to be relatively more efficient in producing the product (as compared to producing other products) than the industry of other countries. The distinction from absolute advantages is important because it implies that every country has comparative advantages around which it can develop industries.

However, the concept of comparative advantage is not readily transferable to the subnational level, because the price adjustment mechanism essential in theories of comparative advantages is imperfect within countries. Relevant price adjustments occur primarily through changes in exchange rates and real wages. In contrast, different regions within a country share a currency, and wages are often not sufficiently flexible to overcome the disadvantages of struggling regions. In this situation, comparative advantages cannot emerge, leaving undeveloped cities permanently unattractive to produce in (Duranton and Venables, 2018[30]). This explains why some local economies remain permanently depressed, while other local economies in the same country are booming.

For policy makers at the subnational level, this implies that local economic development policies should not rely exclusively on comparative advantages. It is important to identify absolute competitive advantages and use them as a basis for their economic development policies. While it is often easy to identify absolute advantages of booming cities (e.g. a highly skilled workforce), absolute advantages of struggling cities are less obvious, because they are usually not utilised. Such hidden absolute advantages are often characteristics that cannot be replicated easily by other cities in the same country. A strategic location on a major trade corridor might be an absolute advantage. Likewise, certain skills within the workforce can be hidden absolute advantages. For example, the population of a city might have language skills that facilitate trade with neighbouring countries and allow the city to serve as a gateway between the countries. The availability of specific infrastructure, such as a hydropower plant that generates a reliable supply of electricity, can be another source of absolute advantages. Likewise, proximity to some natural resources, such as perishable agricultural products, is an absolute advantage if it can serve as the basis for the development of a more advanced industry (e.g. food processing). Unique attractions that can form the basis of a tourism industry are another common absolute advantage (Box 4.6).

Box 4.6. The South African tourism planning toolkit for local government

The tourism industry is particularly reliant on absolute advantages, because many tourists are looking for unique experiences that cannot be found in other parts of the world. South Africa's Ministry for Tourism has published a guide for local governments on how to develop a tourism industry (Department of Tourism, 2010[35]). The document describes the important part that local governments play in tourism development and encourages them to take a stronger role in developing a tourism industry. Among other aspects, the toolkit emphasises the role of local governments in co-ordinating public and private actions and emphasises the importance of strategic planning. It also provides toolboxes for important activities of local governments that are required to build a tourism industry, such as infrastructure provision, marketing and branding, and managing natural assets.

Source (Department of Tourism, 2010[35]), The South African Tourism Planning Toolkit for Local Government, https://tkp.tourism.gov.za/Documents/Tourism%20Planning%20Toolkit%20for%20Local%20Government.pdf.

Policies need to focus on supporting the right kind of local specialisation

Africa's economies are highly reliant on extractive activities, which makes them vulnerable to external shocks and which limits the potential for value-added growth. In response, the African Union emphasises the importance of diversification in its strategic priorities for economic development (AUDA-NEPAD, 2021[36]). This policy is supported by evidence that shows that at low- and middle-income levels, countries with more diversified exports are more developed (Cadot, Carrère and Strauss-Kahn, 2012[37]).

By contrast, at the subnational level, empirical evidence suggests that local specialisation is associated with better economic performance (Kemeny and Storper, 2014[38]), (Hidalgo, 2021[39]). It is especially important for mid-sized cities that do not have the economic mass to support an adequate amount of economic activity in multiple economic clusters. Without any specialisation, these cities cannot realise the localisation economies that emerge from having a large number of firms in related activities in close proximity to each other. In contrast, large cities can more easily sustain multiple sectors of sufficient size and are therefore less reliant on specialisation.

However, not every form of local specialisation is beneficial. Cities that are specialised in a single economic activity, such as resource extraction, are subject to large shocks if the demand for the city's specialisation declines. Moreover, they often struggle to develop economically, because the dominant economic activity crowds out all other economic activities. An extreme form of such specialisations are so-called monotowns, which rely on a single employer, such as a major mine.[2]

Regional development scholars generally advocate specialisation in a variety of economic activities that are related to each other. A city that is specialised in this sense would not only contain a single economic activity. It would contain economic activities that benefit from proximity to each other, without necessarily depending exclusively on each other. For example, a cluster of firms producing packaging for processed food might benefit from the proximity of a food-processing cluster within the same city, without relying exclusively on these firms as customers. Specialisation that includes several stages of the value-added chain allows a city to capture a larger share of the value-added from an industry than specialisation in a single activity. Moreover, the diversity of related activities makes it easier for a city to transform its economy in response to changing economic conditions.

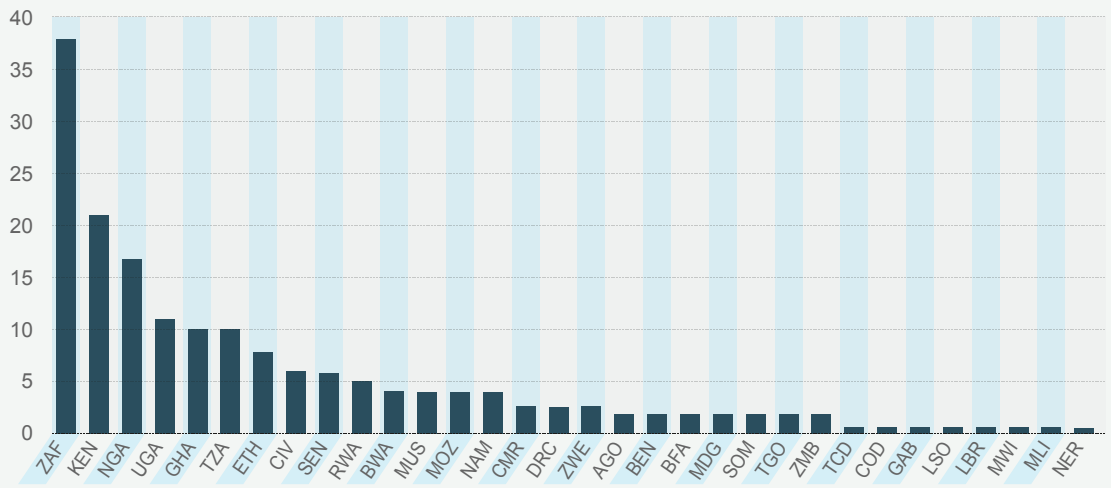
It is important for cities to develop their own economic profiles. By focusing on the specific competitive advantages that make them distinct from other cities (see above), they can avoid competing with other cities in the same country. If different cities specialise in different activities, such local specialisation can contribute to national diversification. In fact, it is rare to find a diversified country that is uniformly diversified across its territory. Countries with diversified national economies are usually diversified because many of their cities have distinct specialisations.

Box 4.7. Business incubators in Africa, excluding North Africa

Business incubators are organisations that help start-ups overcome the challenges of establishing a business. Usually, they provide office space and administrative services, such as secretarial and accounting services. Often, they also offer training on essential aspects of running a business and facilitate links with universities to support product development. In some cases, incubators also provide initial seed funding.

The number of business incubators in sub-Saharan Africa has grown rapidly in recent years. In 2018, David-West, Umukoro and Onuoha (2018[40]) counted 196 business incubators across sub-Saharan Africa. Anecdotal evidence suggests that the number has since continued to grow (Tibaingana, 2019[41]).

Figure 4.3. Number of business incubators in sub-Saharan African countries, 2018



Source (David-West, Umukoro and Onuoha, 2018[40]), Platforms in Sub-Saharan Africa: startup models and the role of business incubation, http://dx.doi.org/10.1108/jic-12-2016-0134.

Globally, business incubators are predominantly operated by governments as an instrument for local economic development. In Africa, by contrast, most business incubators are privately operated. Only 6% of the business incubators identified by David-West, Umukoro and Onuoha (2018[40]) are public sector initiatives, and approximately two-thirds are privately operated. The downside of this otherwise valuable private initiative is that most incubators focus exclusively on providing office space. Less than 10% offer start-ups other forms of support that are common in incubators elsewhere. To make existing incubators more effective as tools for local economic development, local governments could work with private operators of business incubators to improve the range of support offered to start-ups. The impressive growth of privately operated business incubators indicates the degree of demand that exists.

Source (David-West, Umukoro and Onuoha, 2018[40]), Platforms in Sub-Saharan Africa: startup models and the role of business incubation.

Local economies are likely to grow by producing related products

Many modern local economic development policies, in China, the European Union and Mexico, for example, encourage the emergence of so-called "related varieties". These economic activities require capabilities (in particular a similar knowledge base) similar to the existing economic activities in a region (Asheim, Boschma and Cooke, 2011[42]). Economic activity is much more likely to expand gradually into related activities than to emerge in areas completely unrelated to existing economic activity. If a new economic activity relies mostly on existing production methods and needs only a small innovation to become viable, it is relatively easy for businesses to enter the activity. In contrast, entering completely new fields of economic activity may require managers and workers to acquire new skills, a new network of suppliers and large capital investments. Businesses often struggle to make such major

changes. Local economic development policies that encourage the emergence of related varieties of economic activity thus have a higher rate of success than policies that try to attract completely new economic sectors.

To identify related varieties that can be targets for public support, local administrations can use the economic self-discovery processes discussed above. In this process, public officials work with business representatives, academics and other stakeholders to identify potential avenues for economic development that build on existing economic structures. They also determine jointly the measures required of various public and private actors that would enable businesses to move into the production of such related varieties, and they target policies accordingly.

The focus on related varieties imposes an important restriction on local development policies. Cities and regions with low levels of development might have few related fields of economic activity into which their economy can grow. In order to develop quickly, such cities have to move into economic activities that are unrelated to their current activities. However, as this is more difficult to achieve, local governments rarely have the resources and capacity to manage such a transition on their own. This requires a concerted effort by national and local governments that involves a range of co-ordinated policy measures.

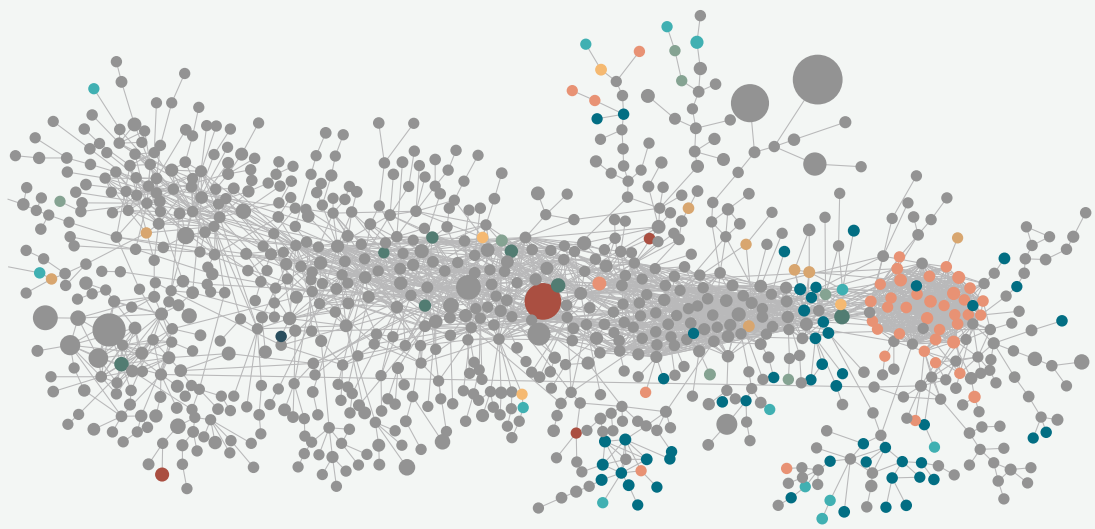
Box 4.8. The 'Product Space' of African economies

Local economic development policies that emphasise related varieties are influenced by economic complexity theory and the Product Space approach (Hidalgo, 2021[39]). This approach measures the relatedness of products from data that indicates how likely it is that they are produced by the same economy (Hidalgo et al., 2007[43]). If two products are usually produced by the same economy, they are related to each other, whereas products that are not usually produced by the same economy are unrelated to each other. The Product Space approach also makes it possible to compute a measure of diversification of the local economy. If this measure is combined with a measure of how common the products produced by the local economy are, it is possible to obtain a measure of economic complexity that correlates highly with future GDP growth (Hidalgo and Hausmann, 2009[44]). The greater the diversity and the less common the products produced by a local economy, the more complex is its economy and the higher its expected GDP growth.

Economic complexity theory thus quantifies two dimensions of economic activity that are crucial for local economic development policy. Relatedness indicates how likely it is that an economic activity can be established in a city, whereas complexity indicates how strongly it will contribute to economic development of the city. Academic researchers have spent much effort on measuring the complexity and diversity of the Product Space of cities, regions and countries. Based on this, methods have been developed that suggest a range of products into whose production economies are most likely to expand (UNCTAD, 2015[45]). These approaches require detailed data, however, and the applicability of their results to a real-world policy-making process still needs validation. For the time being, economic self-discovery processes are likely to yield more effective policy solutions than quantitative approaches.

The Product Space is a method for visualising the relatedness of the products produced by an economy. It is a network representation of all products produced globally, where products that are usually produced by the same economy are connected with each other. By overlaying the products produced by an economy with the global universe of products, it is possible to visualise the degree of diversification of an economy and show its potential to expand into the production of related products. The example below (Figure 4.4) shows the global Product Space. Each dot represents a product category, with those that are predominantly exported from Morocco highlighted in colour. The two most common product classes among Morocco's exports are textiles (green) and agricultural goods (yellow). Product categories that are commonly produced by the same country are connected. A country is likely to expand into the production of product categories related to many of the categories that it already produces.

Figure 4.4. The 'Product Space' of exports from Morocco, 2018



Note Each dot represents a product category in the global Product Space, where products that are usually exported by the same country are connected with each other. Coloured dots represent products disproportionately exported by Morocco. Grey dots reflect the entire universe of products exported globally.

Source (Harvard Growth Lab, 2021[46]), Atlas of Economic Complexity, https://atlas.cid.harvard.edu/.

Many studies have explored the Product Space of African economies in the past decade, to identify opportunities for diversification and economic development, for example (Hidalgo, 2011[47]), (Abdon and Felipe, 2011[48]) (Ulimwengu and Badibanga, 2012[49]) (Hausmann et al., 2014[50]) (Bam and De Bruyne, 2018[51]) (El-Haddad, 2020[52]) and (Goldstein, 2020[53]). Most studies confirm that agriculture and mining are dominant product categories. Where opportunities for diversification exist, they tend to be related to these sectors. However, in most African countries, the Product Space has a low level of economic complexity, and the products produced tend to be unconnected to each other. This limits the possibilities for diversification based on the existing productive capabilities.

Due to the extensive data requirements, no studies of the Product Space in African cities exist. Nevertheless, it is likely that the complexity and diversity of urban economies exceed those of rural areas. Balland et al. (2020[54]) show that in the United States, economic complexity has been higher in cities than in rural areas for the past 150 years. The complexity and potential for diversification in urban areas is likely to be higher than the national average.

Higher education institutions are key drivers for local economic development

Besides businesses and governments, universities and other higher research institutions are the most important external actors in local economic development processes. They can play an outsized role in producing a skilled workforce and can be a major source of innovation for the local economy (Box 4.9). Neither of these roles come automatically, however, and the impact of universities on local economies varies widely. To have a positive impact on local economic development, universities must transfer skills that are useful for the local economy and connect their research to the activities of local businesses. This is especially important, given the strong evidence of a skill mismatch in sub-Saharan Africa, in particular among young workers. Bandara (2018[55]) finds that only 10% of youths are appropriately skilled for the job they do, with 55% are overeducated and 34% undereducated.

Box 4.9. Emerging 'triple helix' co-operation in Algeria

Since the early 2000s, Algeria has moved towards strengthening the links between universities and businesses. Universities have explored the possibility of collaborating with businesses in workshops and conferences and have placed a greater emphasis on teaching entrepreneurial skills. Algeria's universities have traditionally not participated in such activities, so this has been a paradigm change.

The process has been driven by the national government. Even though higher education institutions are dispersed throughout the country, they act primarily on behalf of the national government and engage only rarely with local actors. This contrasts with developing and emerging economies such as India, Indonesia and Malaysia, where higher education institutions act more frequently on behalf of local governments and generally enjoy greater levels of autonomy. Universities in Algeria have more frequently engaged with larger companies than with small and medium-sized enterprises (SMEs), even though SMEs are more important in many local contexts.

To strengthen the links between universities and local economies, teaching and research activities have to be further linked to the needs of local businesses. This requires greater autonomy for universities to initiate co-operation with the private sector, and more co-ordination by local governments.

Sources (Saad, Zawdie and Malairaja, 2008[56]), The triple helix strategy for universities in developing countries: the experiences in Malaysia and Algeria, http://dx.doi.org/10.3152/030234208x323316; (Saad et al., 2010[57]), Mapping the diverse roles of universities in supporting innovation: Opportunities and challenges for Algeria, Indonesia, Malaysia and India, http://triplehelixconference.org/th/8/doc/PROCEEDINGS/0092_Saad_Mohammed_O-099/SaadMahdiAbdrazakDatta_THVIIIMadrid_FinalDraftSubmittedPaper_V10.pdf; (Baaziz, 2019[58]), Towards a new paradigm of "coopetitiveness" in emerging countries: Case of the Algerian Entrepreneurial Ecosystems, http://dx.doi.org/10.5585/iji.v7i1.354.

Valorising universities for local economic development is the objective of the so-called "triple helix" model that emerged in the mid-1990s (Etzkowitz and Leydesdorff, 1995[59]). Traditional innovation systems are linear, with universities responsible for basic research that is commercialised by businesses. In the traditional model, innovation systems are national, and interactions between universities and businesses are limited. In contrast, the triple helix model emphasises continuous interactions between universities and businesses at the subnational (i.e. the regional and local) level. Universities collaborate more closely with businesses and conduct research targeted to the needs of businesses. At the same time, they become more active in commercialising inventions and obtain additional financial resources from grants by local businesses.

Local and regional governments act as intermediaries between businesses and universities and

enable closer collaboration between them. They provide incentives such as grants for joint research by universities and businesses, and they create positions at universities dedicated to technology transfer. They also build and operate infrastructure, such as business incubators attached to universities. Beyond creating an enabling environment, governments may also have to employ coercive measures to enforce co-operation. Such measures can include making funding contingent on co-operation between universities and businesses or providing permission for certain commercial activities only if they include a research component.

While the triple helix approach has made inroads in North Africa (see Box 4.9), it remains rare in sub-Saharan Africa. Saad and Zawdie (2011[60]) argue that the successful application of the triple helix model in sub-Saharan Africa is prevented by the general lack of interactions between actors. Governments are far removed from the research activities of universities, the role of universities in economic development is underappreciated, and businesses prefer to source technology and consultancy services from foreign actors instead of domestic universities. A paradigm shift is needed that recognises the value of such interactions. Moreover, governments, universities and businesses have to build institutional capacity that enables them to develop the strong ties necessary to engage in true collaborations.

Box 4.10. Stanford University's role in the making of Silicon Valley, 1940-60

Silicon Valley in California is the most famous economic cluster in the world. However, in the 1930s, few signs pointed to its future importance. The region was home to several unremarkable electronics companies, and Stanford University was a mid-sized university with an equally unremarkable electrical engineering research programme. The story of the emergence of Silicon Valley in the 1940s and 1950s demonstrates the instrumental role that universities can play in local economic development.

With the outbreak of World War II, Stanford University received significant funding from the military to scale up its electronics research. The crucial element in the emergence of Silicon Valley, though, was not the additional funding, but a new form of co-operation between the university and businesses. Frederick Terman, dean of the engineering department and later provost of Stanford University, called the university and the local industry a "community of interest" (Saxenian, 1978[61]). He encouraged faculty to "be sensitive to the creative activities of the surrounding industries" (Saxenian, 1978[61]) and even used his contacts to attract new firms to the region. In return, the university started to receive significant donations and research contracts from nearby firms that compensated for the decline in government funding after the end of the Korean War in the early 1950s. At same time, the Stanford Industrial Park was set up on land next to Stanford University as one of the first industrial parks in the United States. Stanford University managed access tightly. Land leases were granted at extremely low rates, but only to firms that were considered beneficial to the activities of the university. By 1961, the industrial park was home to 11 000 employees, and its success made it a model for subsequent generations of business incubators and industrial parks around the world.

As the number of electronics firms around Stanford University grew, the university increased its training of graduates. Between the early 1950s and the early 1960s, the number of doctorates awarded in electrical engineering nearly tripled, from an average of 13 annually to an average of 37. In the late 1950s, Stanford had also established an honours programme to train employees of local firms in the evening, after normal working hours. The programme was extremely valuable to small and mid-sized firms that did not have the resources for their own training programmes in an industry characterised by rapid technological change. In turn, Stanford used access to the programme as a tool to attract more firms to the region.

By the late 1950s, the region had already become the leading location for the electronics and semiconductor industry. The availability of skilled workers in the field of electrical engineering exceeded that of any other region. Not only Stanford University but the region's higher education system, including many smaller community colleges, dedicated their educational efforts to the sector. As the network of suppliers and customers became more complex and a venture capital industry emerged, the benefits of being located in the region increased. At the time, spin-offs from established firms became more common, further reinforcing the positive dynamics of business creations.

These benefits from agglomeration created a virtuous cycle that has lasted for several decades. The region is still one of the most productive places in the world. While Stanford University was not the only factor in this success story, Silicon Valley would not exist in its current form without the university's strong support of local economic development. Its focus on university-industry links, which treated the success of the surrounding businesses as indispensable for the success of the university itself, helped create one of the most singular instances ever of local economic development (Adams, 2009[62]).

Sources (Adams, 2009[62]), Follow the Money: Engineering at Stanford and UC Berkeley During the Rise of Silicon Valley, http://dx.doi.org/10.1007/s11024-009-9138-y; (Saxenian, 1978[61]), The Genesis of Silicon Valley.

Notes

1 The term deconcentration describes the distribution of powers to local administrations that remain under the control of the central government rather than locally elected governments.

2 The term "monotown" originated in the centrally planned economies of the former Soviet Union, where cities were built around a single industrial complex.

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5

Financing African urbanisation: Increasing the fiscal capacity of African cities

This chapter provides an overview of the fiscal capacity of African local governments. It shows that local governments in Africa have exceptionally low local fiscal capacity. They are heavily reliant on transfers from national governments, raise few own-source revenues, and with few exceptions, do not have access to debt financing. The chapter analyses instruments that can be used to increase fiscal capacity of local governments. It emphasises the importance of debt financing for funding investments in growth-enhancing infrastructure and service delivery.

In Brief

Increasing the capacity of African cities to invest

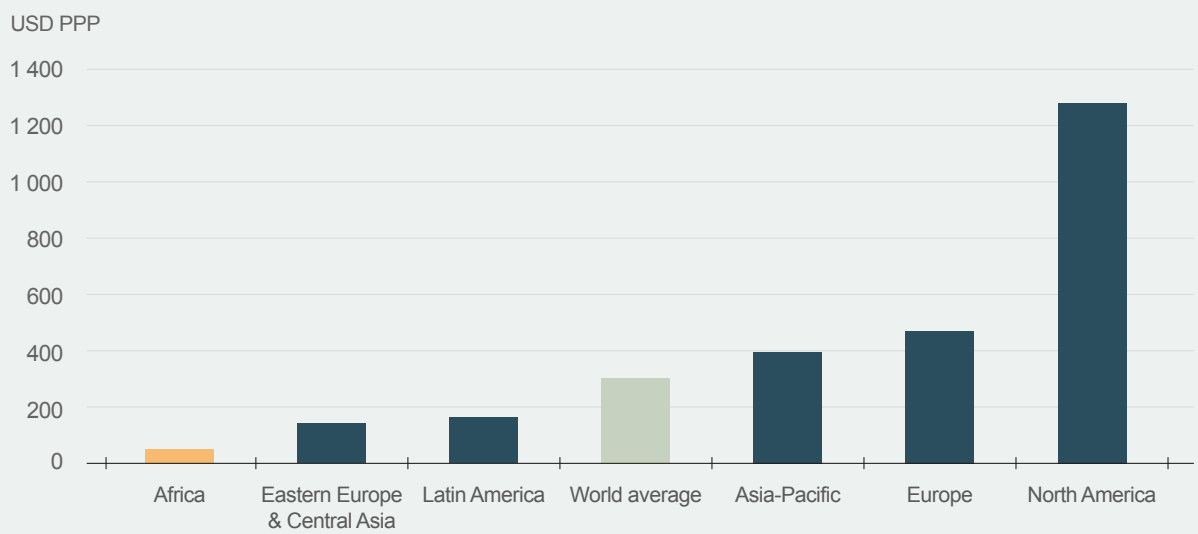
Insufficient infrastructure and public services are holding back the economic development of African cities. Due to Africa's rapid urbanisation, major investments are needed at all levels of government to maintain and increase the current level of infrastructure and service provision. This ambition is confirmed by the African Union Agenda 2063 and the United Nations'2030 Agenda for Sustainable Development (UN General Assembly, 2015[1]; African Union Commission, 2015[2]). Investing in infrastructure is particularly urgent because it is most efficient if it takes place while cities are growing. Once an urban area has been built up, retrofitting it with infrastructure is significantly more expensive than providing the same level of infrastructure before the urban development process.

The dynamic economy of African cities creates the resources needed to increase investment in public services and infrastructure. Many subnational governments, however, struggle to harness these resources and to use them productively. They lack the capacity to raise the funding for investment that would generate additional economic growth and improve social outcomes.

In the past 30 years, many African countries have made important steps towards fiscal decentralisation and greater local autonomy. Further efforts to strengthen fiscal and administrative capacity of local governments are necessary, however. This chapter shows that African countries have low levels of local fiscal capacity, even when compared to other countries at similar income levels. Subnational governments in lower-middle income countries in Africa have an average annual per capita spending of USD 180. The corresponding figure for non-African lower-middle income countries is USD 542, while in OECD countries, the average spending is USD 6 097 (OECD/UCLG, 2019[3]).

The differences in total government revenue and investment spending are equally striking. Subnational governments in Africa make up 16% of total government revenues, compared to a global average of 25%[1] and investment by subnational governments in Africa makes up just 19% of total public investment, compared to a global average of 37%. This translates into annual per capita investment spending by subnational governments in Africa of USD 47, compared to a global average of USD 313 (Figure 5.1). African local governments thus have high investment needs, but exceptionally low fiscal capacity to make these investments.

Figure 5.1. Average subnational government public investment per capita



Note Due to the lack of data available, only the following countries are included in the average for Africa: AGO, BEN, BDI, CPV, ETH, KEN, MAR, MUS, NGA, RWA, SEN, TUN, TZA, UGA, ZAF. The region "Middle East and West Asia" has been excluded from the dataset, as the number of observations for the region was deemed not to be representative. This region has been considered in the world average. Year of reference: 2016.

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Currently, subnational governments in Africa rely on state transfers and grants to fund 58% of their budget (OECD/UCLG, 2019[3]). Transfers have several potential advantages. They can be targeted to the needs of local governments and can equalise fiscal capacity across both the rich and the poor areas of a country. If they are embedded in a stable institutional framework, they also offer a high level of stability and predictability. However, transfers also have disadvantages. Most intergovernmental transfers are conditional and earmarked, which limits the fiscal autonomy of the local governments receiving them. Moreover, the distribution of state transfers can be irregular and unpredictable, complicating long-term planning and management (UN-Habitat, 2015[4]). Compared to own resource revenues, they provide fewer incentives for local governments to invest in economic development, to ensure effective spending and to promote transparency. In addition, the level of transfers does not reflect local responsibilities and can depend on political circumstances (UCLGA, Cities Alliance, 2018[5]).

To increase scope for investment and reduce dependence on state transfers, local governments in Africa need to tap into the wealth that cities generate by increasing their own-source revenues. Local taxes, such as property taxes, as well as fees charged to users of public services and infrastructure, are major revenue sources for local governments in many parts of the world. Own-source revenues have multiple advantages, quite apart from increasing overall revenue levels. They provide strong incentives for local governments to encourage economic development, and they increase government accountability, as they connect local spending and local taxation decisions.

Own-source revenues also create a link from increased public investment to increased revenues from taxes and fees, through the economic growth that investments generate. The future increase in revenues can be used to increase funding for local socio-economic development. Own-source revenues also increase access to debt financing, by increasing repayment capacity and financial independence.

Debt financing is a key instrument for infrastructure investments, as local governments require large expenditures up front and cannot be financed out of recurrent budgets. Many investment projects that would generate large economic and social returns are not undertaken because local governments cannot access the credit to finance them.

The capacity of African local governments to access debt financing needs to be increased. Subnational debt makes up just 4% of total government debt in Africa, and a large part of this is issued by federated states or regional governments and not by local governments (OECD/UCLG, 2019[3]). Local governments have several possibilities for accessing debt financing: commercial banks, borrowing from national and international development banks and capital markets.

Many local governments lack the capacity to comply with the formal and informal requirements to access bond markets and/or do not have the institutional authority to issue bonds. The African Development Bank's (AfDB) Guidelines on Subnational Finance are designed for local governments to access credit and raise capital, in particular financing by the AfDB and other development finance institutions.

In recent decades, cities in Africa have grown by over 4% per year, almost doubling their original population between 2000 and 2015 (OECD/SWAC, 2020[6]). They are likely to see further population growth, which is estimated to reach 1.5 billion urban dwellers by 2050 (UNWPP, 2019[7]). These growth rates would be challenging for local governments anywhere in the world, let alone in the context of the limited administrative and financial capacity of Africa's local governments. Local governments are required to provide infrastructure and services for a population in constant change and growth. Even meeting basic needs requires massive investment, involving, for example, the construction and upgrade of roads, schools, health facilities, electricity grids, water and sewage networks and waste management systems.

To be able to support the continued growth and economic development of their cities, local governments

must be able to tap the wealth that their cities generate. Chapter 1 of this report shows the important role that African cities play in the economic development of their countries. It also shows how the positive impact of urbanisation on economic performance and quality of life extends beyond cities, benefitting smaller towns and rural areas. Maintaining and strengthening these economic benefits requires continued investment that local governments cannot make without further fiscal and human resources.

Beyond providing services and infrastructure to local residents, it is important for local governments to play a more active role in economic development. As discussed in Chapter 4, local governments can make a significant contribution to the economic growth of their cities if they pursue the right local economic development policies. While successful local economic policies do not only depend on the amounts that local governments can spend, the ability to make growth-enhancing investments is crucial for their effectiveness. Local governments are best placed to provide many local services and infrastructure. With their intimate knowledge of local circumstances, they are in a better position to target spending to priority areas, thus allowing public spending to address the most pressing needs (Kis-Katos and Sjharir, 2014[8]; Faguet, 2004[9]; Tiebout, 1956[10]). Yet, while local governments in Africa arguably have the greatest spending needs (Box 5.1), this chapter shows that they also have the lowest fiscal capacity[2] among all local governments globally. Not only do they have low revenues and expenditures in absolute terms, they also have very low fiscal capacity by comparison with total government spending in their countries.

Box 5.1. The infrastructure gap in Africa

The infrastructure gap is defined as the difference between the required investments and the actual investments available in a given area. While it is impossible to calculate precisely, it can provide a rough order of magnitude of the investments needed. Estimates of Africa's infrastructure gap range between USD 52 billion and USD 92 billion per year. Of these sums, estimates indicate that close to half are linked to improvements and requirements at the urban scale (ICA, 2018[11]; UCLG, 2010[12]; AfDB/OECD/UNDP, 2016[13]). Sectors most in need of investments include power, water supply and sanitation, information and communication technology, road and other transport sectors (air, rail and ports) (AfDB, 2018[14]).

Source (AfDB, 2018[14]).

The arguments in favour of a strong role for local governments in infrastructure investment and public service provision do not imply that other levels of government are less important. National governments have a key role that local governments cannot play, such as stabilising the economy and redistributing income to alleviate poverty and reduce inequality (Oates, 1972[15]; Musgrave, 1959[16]). National governments are also indispensable for major infrastructure investments, like rail links between different cities or national airports. Beyond supporting projects financially, the national government plays an important role in co-ordinating different governmental actors and agencies involved in planning and funding urban investment. National governments must also ensure local governments' compliance with legal requirements, such as enforcing standards and principles on public expenditure.

Beyond having low fiscal capacity, local governments in Africa face two further constraints by comparison with many other local governments globally. First, they are heavily reliant on transfers from the national government and have few own-source revenues. Second, with few exceptions, local governments

in Africa do not have access to debt financing. This limits their potential to invest, even if investments have high social, environmental or economic returns and will lead to significantly increased tax revenues in the future.

This chapter provides an overview of the fiscal situation in Africa compared to other parts of the world. It analyses the main instruments for financing local governments that are available to strengthen the fiscal capacity of local governments. It discusses state transfers and grants, followed by the most important instruments for raising own-source revenues. The chapter concludes by presenting the potential advantages of debt financing and discusses the main bottlenecks local governments face in accessing it.

Fiscal decentralisation in Africa

Decentralisation has been an objective in many developing countries for the past three decades. It has been defined as "the transfer of a range of powers, responsibilities and resources from national government to subnational governments, defined as separated legal entities elected by universal suffrage and having some degree of autonomy" (OECD, 2019[17]). The need to increase and improve decentralisation in Africa was mentioned in the 2014 African Charter on the Values and Principles of Decentralisation, Local Governance and Local Development[3] as well as in the African Union's Agenda 2063 (African Union Commission, 2015[2]). Donor and development partners have also supported programmes and made investments designed to strengthen local level administrations (OECD/UCLG, 2019[18]) (see Box 5.2).

Despite the longstanding attention and emphasis on decentralisation, the competencies and financial resources of local governments in Africa remain limited, particularly in a context of rapid urbanisation.

Box 5.2. Including local governments in urban development projects

In several countries, the 1970s and 1980s' programmes designed to improve the functionality and liveability of cities were renewed with agendas that had the additional objective of developing decentralised levels of government, such as municipalities and provinces. These programmes supported various areas of local management through training, the development of tools and studies, and sometimes by setting up local financing institutions.

In Senegal, the PACASEN (*Programme d'Appui aux Communes et Agglomérations du Sénégal*, or Support Programme for Municipalities and Clusters) was established in 2018 and designed as a continuation of previous urban development programmes (PAC and PRECOL). Tunisia's Urban Development and Local Government programme was established on a similar basis after the second and third urban programme financed by the World Bank.

The programmes aim to build capacity of local governments, using existing legislation in favour of decentralisation as the basis for increasing local governments' competencies and provide room for manoeuvre. Both programmes have the overarching objective of improving public service delivery. In Tunisia's case, the programme also aims to improve access to infrastructure and services for disadvantaged neighbourhoods. Examples of actions promoted by the programme PACASEN in Senegal are:

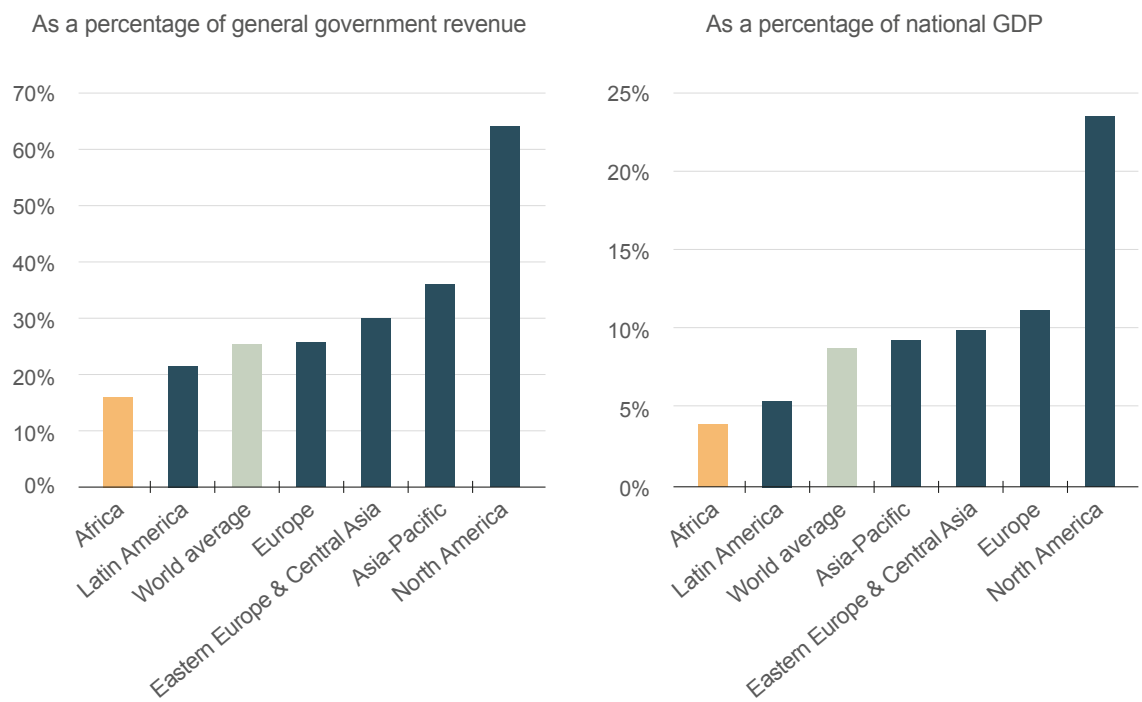
- to increase and allocate in a transparent way the financial resources of local governments
- to reinforce the ability of local government to manage urban development projects, whether involving infrastructure or provision of services
- to improve the participation of civil society at all levels of the programme and in urban projects.
- Both programmes have objectives that combine enhancing local governments' administrative and financial ability with the provision of urban services.

Source Further information on these projects is available at the following websites: (World Bank, 2021[19]), Development Projects: Tunisia, https://projects.worldbank.org/en/projects-operations/project-detail/P130637; (AFD, 2018[20]), Programme d'appui aux communes et agglomérations du Sénégal (PACASEN), https://www.afd.fr/fr/carte-des-projets/programme-dappui-aux-communes-et-agglomerations-du-senegal-pacasen; (ADL Sénégal, 2014[21]).

The OECD/United Cities and Local Governments (UCLG) World Observatory on Subnational Government Finance and Investment (SNG-WOFI) has compiled data on governments' subnational revenues and expenditure for 29 African countries as well as for 106 countries in other continents. Most of Africa's countries are among the least fiscally decentralised states according to measures such as subnational expenditure and revenue (measured both as a percentage of national government revenues and expenditure and as a percentage of national GDP). This chapter analyses this data, but it is important to note that subnational fiscal data available on African countries is limited. More than half of the 29 African countries studied by the Observatory lack basic fiscal data; and when it is available, the data quality is generally low (OECD/UCLG, 2019[18]).

In Africa, revenues of subnational governments are 16% of national government revenues and account for only 4% of national GDP. The global average for these indicators is 25% and 8.5% respectively (Figure 5.2). In terms of expenditure, subnational governments' spending as a percentage of national government expenditure is equally low, at 16%, in comparison with a world average of 24% (Figure 5.5) (OECD/UCLG, 2019[3]).

Figure 5.2. Subnational government revenue



Note Due to the lack of data available, only the following countries are included in the average for Africa: BEN, BWA, BDI, CIV, CPV, ETH, KEN, MAR, MUS, MWI, NAM, NGA, RWA, SEN, SWZ, TUN, TZA, UGA, ZAF, ZWE.
Year of reference: 2016.

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Low revenues of local governments limit their ability to invest

The lack of revenues has direct consequences on the ability of subnational governments to invest in infrastructure and services at the local and regional level. In Africa, subnational governments are, on average, responsible for 19% of all public investment. In contrast, their average share in all other global regions ranges between 36% and 41%, with the exception of North America, all of whose countries are federal countries and where subnational governments are responsible for 72% of all spending (Figure 5.4 left) (OECD/UCLG, 2019[3]).

The low level of subnational investment is not primarily due to African countries' low income levels.

While subnational investment increases as countries grow richer, it is low in Africa even when compared with other countries of similar income levels. Figure 5.4 (right) shows that subnational governments in African low-income countries are responsible for less than half as much of public investment as their counterparts in other low-income countries. While upper middle-income countries seem to depart from this pattern, this category includes only two African countries: Mauritius and South Africa.[4]

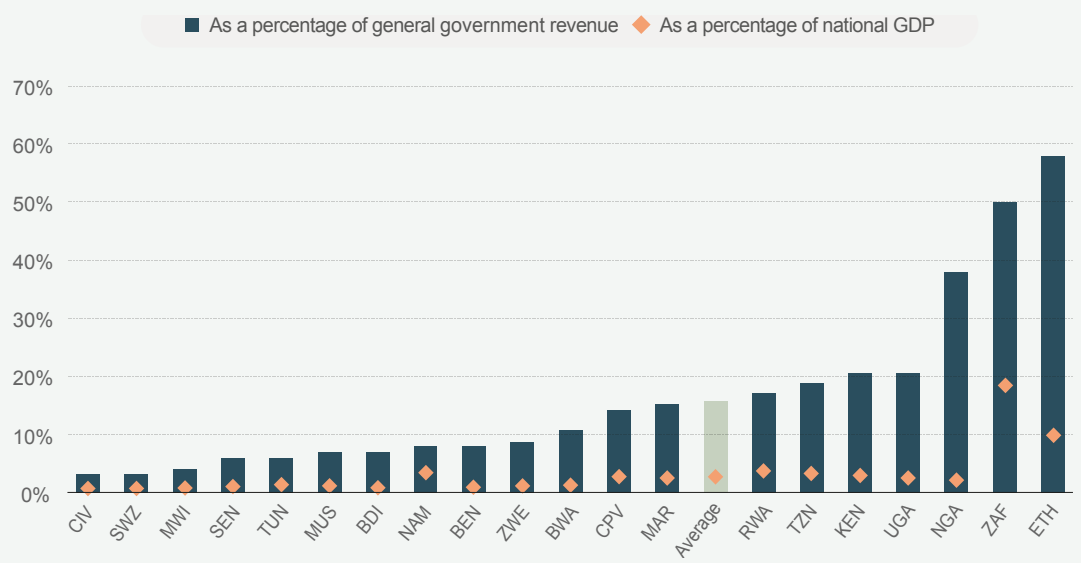
Box 5.3. Subnational revenues and expenditure in federal and unitary countries

Large differences in subnational revenues and expenditures exist between Africa's federal and unitary countries. As in other parts of the world, Africa's federal countries have a much higher degree of fiscal decentralisation than its unitary countries.

Average subnational revenues as a share of total government revenues for the three federal countries in the data (Ethiopia, Nigeria and South Africa) are 49%, compared to 10% in unitary countries. Similarly, average expenditure for subnational revenues as a percentage of national government expenditure in federal countries is 48%, compared to 10% in unitary countries.

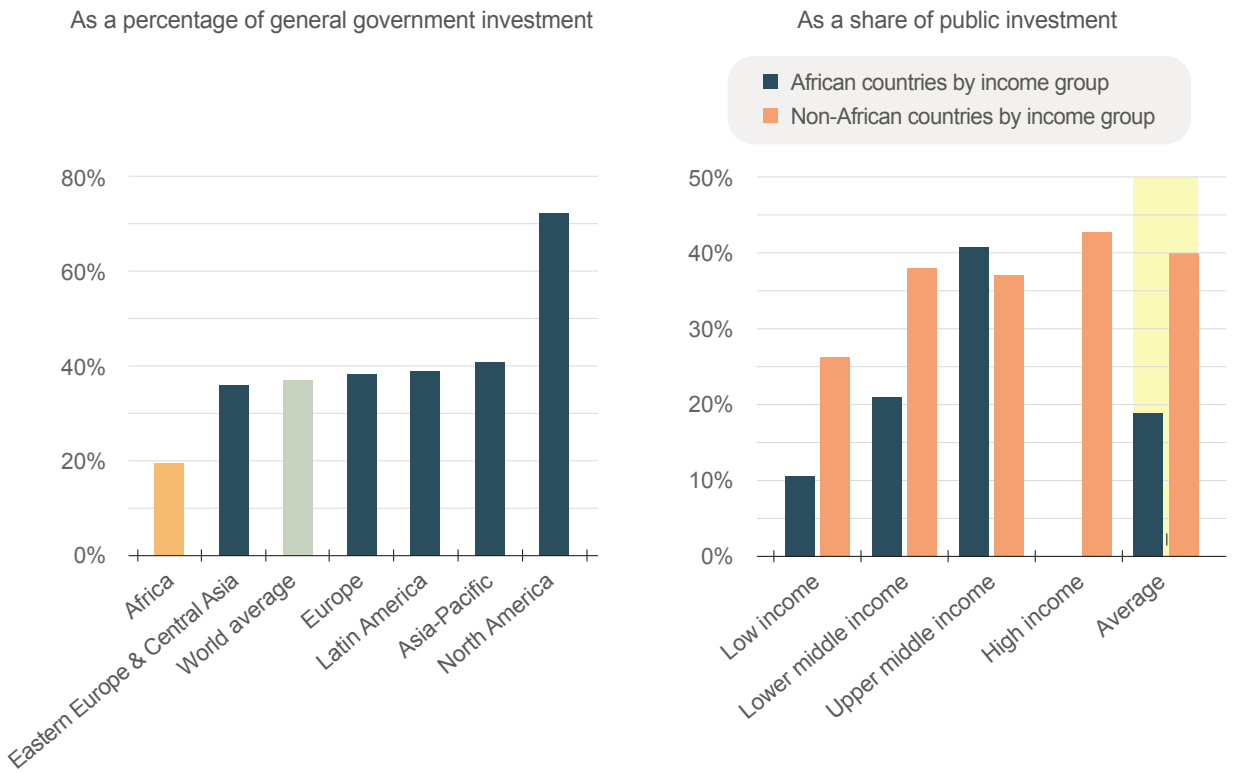
The data does not allow for further breakdown of revenues and expenditures between different levels of subnational government. However, the large gap between federal and unitary countries is primarily due to the strong role of the states in federal countries. By comparison, differences in the role of local governments in federal and unitary countries are comparatively minor (OECD/UCLG, 2019[3]).

Figure 5.3. Subnational government revenues of African countries



Note: Due to the lack of data available, only the following countries are included in the average for Africa: Revenue: BEN, BWA, BDI, CPV, CIV, ETH, KEN, MAR, MUS, MWI, NAM, NGA, RWA, SEN, SWZ, TUN, TZA, UGA, ZAF, ZWE. Expenditure: AGO, BEN, BWA, BDI, CPV, ETH, KEN, MAR, MOZ, MUS, NAM, NGA, RWA, SEN, SWZ, TUN, TZA, UGA, ZAF, ZWE.
Year of reference: 2016.
Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Figure 5.4. Subnational government investment



Note Due to the lack of data available, only the following countries are included in the average for Africa: AGO, BEN, BDI, CPV, ETH, KEN, MAR, MUS, NGA, RWA, SEN, TUN, TZA, UGA, ZAF.

Year of reference: 2016.

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

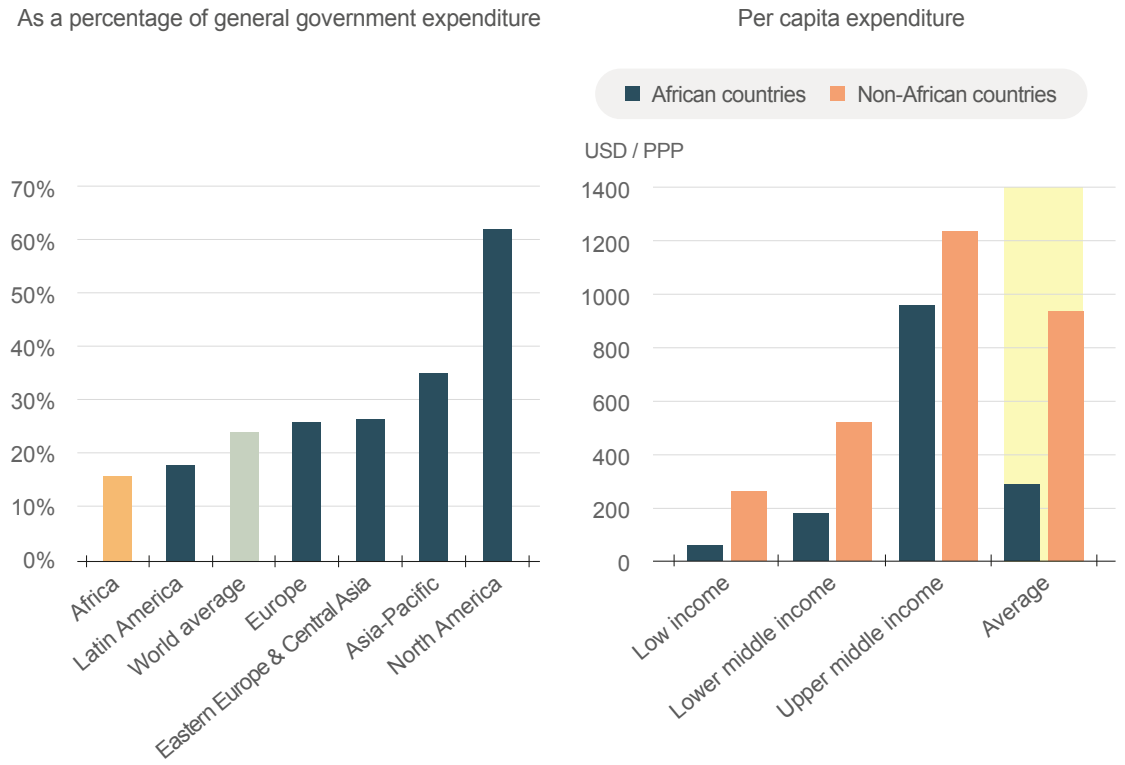
Two factors explain the low degree of fiscal decentralisation in Africa. First, the number of tasks and responsibilities granted to the local level is low. In fields where the local level has competencies, its responsibilities are limited. National governments often retain significant competencies in fields such as education, health, water, sewage and electricity distribution (OECD/UCLG, 2019[18]).

Most local governments are tasked with responsibilities in sectors such as the construction and maintenance of local roads, waste management, sanitation, the operation of local markets and adjoining facilities (for example slaughterhouses) as well as urban planning. In some countries, local governments are responsible for other public services that have a direct link to their jurisdiction, such as the provision of health services, primary education and utility networks (water, electricity). This is the case in Algeria, Benin, Guinea, Morocco, Namibia, Niger and Zambia. Sometimes, local governments also have competencies in economic development policies, in secondary education and vocational programmes, and in housing, as for instance in South Africa, Uganda and Zimbabwe (UCLG, 2010[12]).

Second, local governments have been granted few budgetary and fiscal powers by national governments. Even where competencies have been transferred to the local level, they have often not been accompanied by concomitant budgetary transfers. Local governments are therefore responsible for delivering services without the required capacity (whether financial or administrative). Such unfunded mandates reduce the quality of service delivery and prevent local governments from fulfilling the tasks they are responsible for.

Expenditure levels as a percentage of total public expenditure is a proxy for the real capacity local governments have to deliver on their responsibilities (UCLG, 2010[12]). Local government expenditure in Africa is low in absolute terms and as a share of total expenditure. As with public investments, it is also low in comparison with countries in the same income group (Figure 5.5 right).

Figure 5.5. Subnational government expenditure



Note Due to the lack of data available, only the following countries are included in the average for Africa: AGO, BEN, BWA, BDI, CPV, ETH, KEN, MAR, MOZ, MUS, NAM, NGA, RWA, SEN, SWZ, TUN, TZA, UGA, ZAF, ZWE. The average shown in the graph "Per capita by income group" excludes high-income countries.
Year of reference: 2016.

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Box 5.4. The impact of COVID-19 on local finances

As a consequence of the COVID-19 pandemic, the status of revenues and expenditure described here has further deteriorated. Since March 2020, local governments have been at the forefront of the government response to the COVID-19 crisis. The increased pressure on local public services and the weak economic performance has led to a general impoverishment of local finances.

Local governments were predicted to lose up to 60% of their revenue in 2021 (UN-Habitat, UNECA, UNCDF and UCLGA, 2020[22]). This was mainly due to the decrease in economic activity as a result of the lockdowns and preventative measures (for example the closure of commercial areas and construction sites) but also to the relief packages local governments put in place to protect businesses from economic instability.

Expenditure has been concentrated on immediate responses to the crisis, in purchase of protective equipment and reinforcing healthcare facilities. These needs have taken priority over long-term investment projects and planned infrastructure. As a result, local governments' investment expenditures dropped by 63% at the beginning of the pandemic (UN-Habitat, UNECA, UNCDF and UCLGA, 2020[22]).

Note For more information on measures taken by local governments in several African states, visit UCLG's Africa website (UCLGA, 2020[23]), COVID-19: African local and regional governments on the front line, https://www.uclga.org/news/covid-19-african-local-and-regional-governments-on-the-front-line/.
Source (UN-Habitat, UNECA, UNCDF and UCLGA, 2020[22]), COVID-19 in Africa Cities: Impacts, Responses and Policies, https://unhabitat.org/covid-19-in-africa-cities-impacts-responses-and-policies.

Instruments for financing local governments

The following sections discuss the main sources of financing that local governments can access. It covers transfers and grants that local governments receive from the national government, own-source revenues that local governments raise directly, and debt financing. Debt financing is often used to finance public investments, as the expected increase in tax revenues from effective public investment can be used to pay back debt without having to cut other government spending in the future.

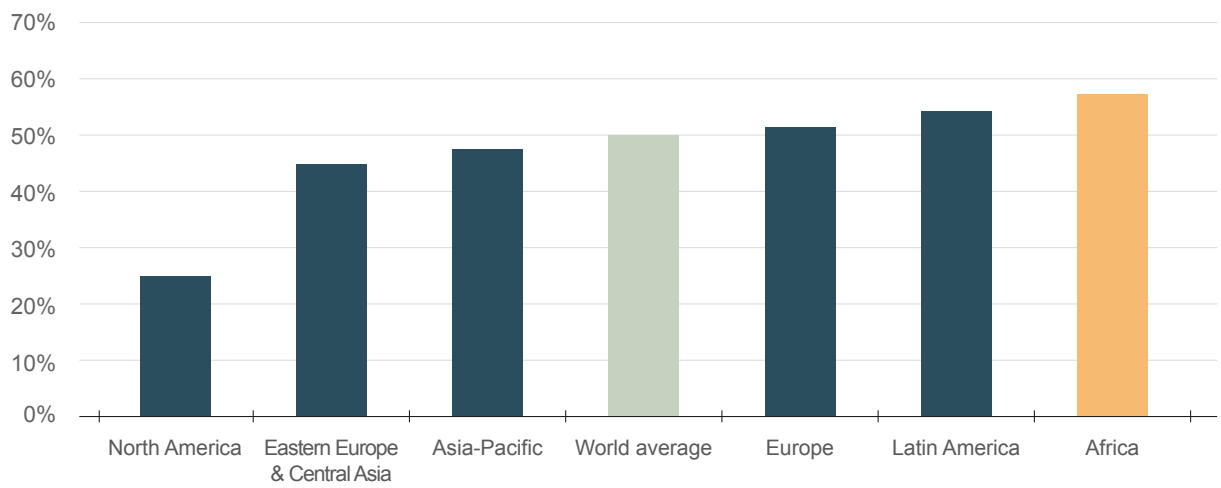
State transfers and grants

Intergovernmental transfers are the most common tool countries use to fund local governments and other decentralised entities. They often fund local services and other statutory functions of local governments. State transfers and grants generally aim to enable local governments to carry out the tasks entrusted to them by the national government. Transfers can also reduce spatial inequality, as they usually do not depend on local tax revenues and therefore redistribute wealth across the national territory from richer to poorer regions. They can ensure a minimum quality of public service delivery and public goods provision.

On most continents, national governments' transfers and grants are the most common method of funding subnational authorities. This is particularly the case in Africa, where 58% of subnational authorities' revenues are obtained in this form[5] (Figure 5.6).

Transfers from the national government can be funded through different means, whether tax or non-tax based. Tax-based transfers include the distribution of taxes collected exclusively by the national government, such as import and export duties, and taxes on the extraction of natural resources. Taxes collected at the local level, for example some business and property taxes, can also become transfers, if they are centralised and redistributed to local governments by the national government[6] (UN-Habitat, 2015[4]). Non-tax revenues that can be redistributed to decentralised authorities include foreign aid grants, credit from public or private institutions, as well as any other licences, fees and fines that are not entrusted to the local level.

Figure 5.6. Transfers and grants as a percentage of total subnational government revenue



Note Data from the World Observatory contains tax revenue data for the following African countries: BEN, BWA, CIV, CPV, ETH, KEN, , MAR, MUS, MWI NAM, NGA, RWA, SEN, SWZ, TUN, TZA, UGA, ZAF, ZWE.
Year of reference: 2016.

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Intergovernmental transfers are often subject to a set of diverse and important conditions. *Unconditional grants* are grants that are not directly linked to a particular expenditure, giving local governments discretionary powers on spending decisions (UN-Habitat, 2015[4]). They can fall into two categories: equalisation and general grants. Equalisation transfers are used by national governments to redistribute income from richer regions to poorer ones, compensating for fiscal disparities within countries. Zambia's national

government, for example, redistributes 5% of the income tax according to a formula based on population and poverty levels (OECD/UCLG, 2019[24]). In contrast, *general grants* are allocated equally to local governments with the purpose of supporting the activity of the local government, without necessarily taking into account wealth differences between jurisdictions. These grants are based on general characteristics of the local area, such as population or territorial size.

Conditional grants, on the other hand, are transfers earmarked to fund specific local government activities. These transfers can ensure minimum standards of service in a given sector, or incentivise the investment and development of national objectives, such as the reduction of poverty or development of education of specific groups (UN-Habitat, 2015[4]). Conditional grants are often linked to evaluation criteria that ensure the budget is spent in compliance with clear objectives. Some evidence shows that projects funded through conditional grants yield overall better results than unconditional ones (Baird et al., 2013[25]). However, one potential drawback of conditional grants is the fact that they restrict local governments' autonomy in determining spending priorities (Oates, 1972[15]; Kis-Katos and Sjharir, 2014[8]; Besley and Coate, 2003[26]). This can lead to "unwanted investments" that local governments not support (Boadway and Shah, 2007[27]).

Capital grants are a special type of conditional grant. They are allocated for the development of infrastructure, such as roads, water, sewage and sanitation systems. The national government in this case identifies infrastructure needs and allocates a fund to improve them. Sometimes, capital grants depend on a co-financing agreement, which ensures the contribution of local government or other agencies to the financing of a given project, or their compliance with certain requirements, such as the development of a programme that ensures the maintenance of the infrastructure. One example of such investments might be the construction of a mass transit system, where the national government, in collaboration with development banks or other partners, finances the construction on the condition that the local government contributes to the financing and co-ordination of the network's operations.

Both conditional and unconditional grants require data to distribute resources across local governments. Conditional grants for education, for example, might be based on the number of students living in a city. Data requirements for equalisation grants can be complex, since allocation formulas can involve many dimensions (UCLGA, 2014[28]). Some basic equalisation grants, though, can be calculated based on statistics that are available in most countries, such as poverty levels by subnational region. Box 5.5 illustrates an example of such a transfer system.

Box 5.5. The intergovernmental transfer framework in Cameroon

Cameroon's national government distributes taxes through a system called CAC (*centimes additionnels communaux*), the rates of which are set in legislation: 10% of the personal income, corporate, VAT, gaming and business license tax and 25% of the property and license tax are allocated to local governments. The Fund for Municipal Equipment and Operation (FEICOM) receives these amounts and redistributes them to the municipalities in proportion to the size of their population.

The framework ensures that transfers are transparent, predictable and arrive in a timely fashion. However, the effectiveness of the system is limited by the unclear division of competencies between various levels of government. This makes it difficult for local governments to fulfil their mandates and allows the national government to dictate the agendas of local governments (World Bank, 2012[29]).

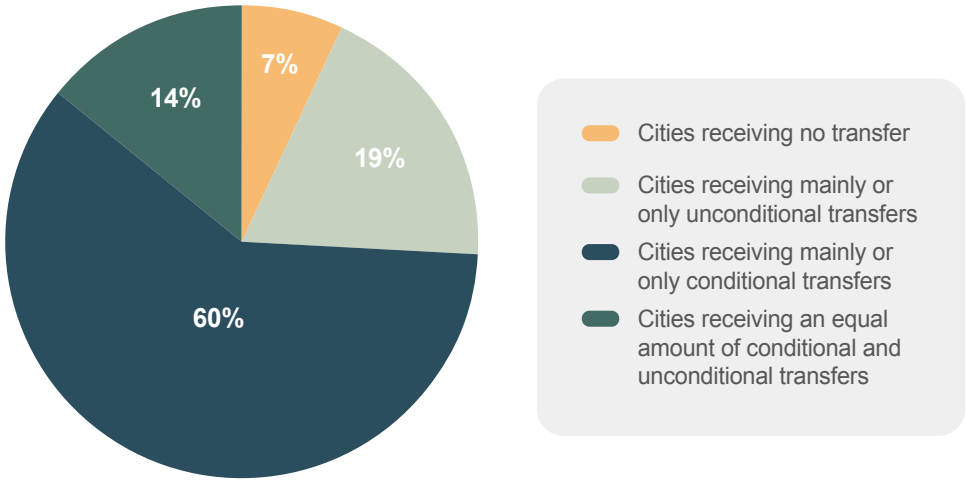
The transfer system's effectiveness is also reduced by the redistribution criteria. Based exclusively on population, the formula used to allocate intergovernmental transfers fails to consider differences across jurisdictions in infrastructure levels and capital endowments. Differences in costs are also disregarded: the additional cost of providing services in remote areas or in urban centres with high densities is not considered. The sum of these elements can lead to situations in which CAC transfers are inversely correlated with need.

Cameroon's example shows how transfers can be successful only if they combine predictability and transparency with appropriate redistribution formulas that take into account the requirements of different jurisdictions. Furthermore, transfers need to be linked to clearly defined competencies entrusted to the level of government receiving them.

Source (UCLGA, 2014[28]); Revue Africaine des Finances Locales, https://knowledge.uclga.org/IMG/pdf/larevueafricainedesfinanceslocales2014.pdf; (World Bank, 2012[29]), Cameroon, The Path to Fiscal Decentralization, Opportunities and Challenges, http://hdl.handle.net/10986/11875.

Although systematic data on the type of grants is scarce, the existing evidence shows that conditional grants are more often used than unconditional ones (Figure 5.7) (UCLGA, 2014[28]).

Figure 5.7. Share of conditional and unconditional transfers to African cities



Note Analysis includes 153 cities in 40 countries. More information on the share of unconditional, conditional and capital grants can be found on the country profiles compiled by the Subnational Government World Observatory (OECD/UCLG, 2019[24]).
Year of reference: 2018.

Source (UCLGA, 2014, p. 15[28]), Revue Africaine des Finances Locales, https://knowledge.uclga.org/IMG/pdf/larevueafricainedesfinanceslocales2014.pdf.

Intergovernmental transfers are an effective mechanism for funding local governments, regardless of the level of administrative capacity. This financial instrument is particularly important for local governments that lack the administrative or institutional powers to raise financial means autonomously. However, this does not imply that administrative capacity is irrelevant, since it can ensure that transfers are spent efficiently and effectively. Transfers can play an important role in building local administrative capacity because they provide the resources required to do so. Evidence from Tanzania and Benin shows that transfers can have a multiplier effect on local revenues, by enhancing local governments' tax collection capacity. They can also improve local service delivery, which encourages voluntary tax compliance (Caldeira and Rota-Graziosi, 2014[30]; Masaki, 2018[31]). This contrasts with studies of high-income countries that indicate that transfers discourage local governments from raising own-source revenues (Zhuravskaya, 2000[32]; Mogues and Benin, 2012[33]; Correa and Steiner, 1999[34]).

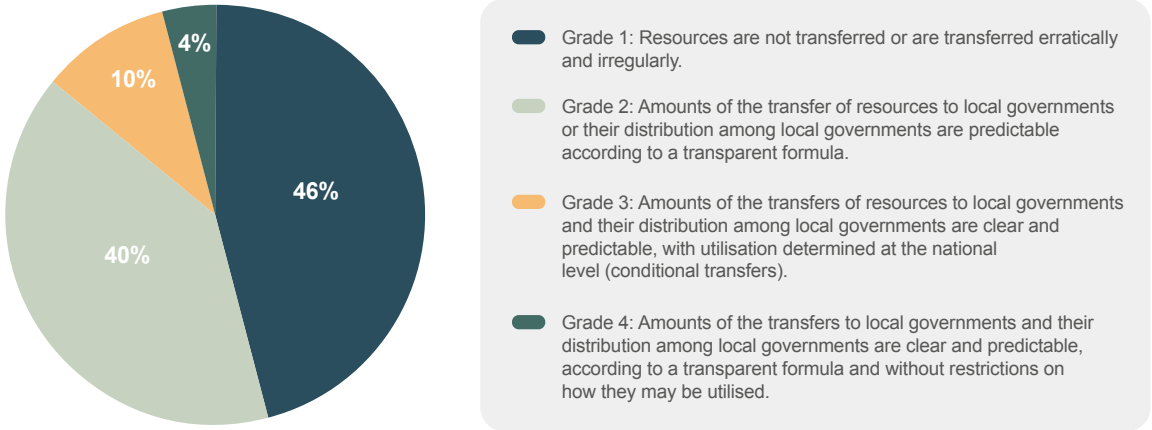
Functional subnational transfer systems need to meet certain key standards. First, institutional safeguards are needed to ensure the regularity and predictability of transfers. Local governments must be able to plan their long-term investments based on future revenue streams. Likewise, the provision of public services is only possible if regular funding is provided to build and maintain the administrative structures needed. Regularity and predictability also have important implications for local governments' ability to access credit to fund infrastructure projects. Lenders are wary of the perceived risk of borrowers with unstable, unpredictable income streams.

Second, state transfers need to be transparent in the amount of transfers and the intended recipients. State transfers are often distributed through complex administrative processes, reducing the capacity to monitor and evaluate their spending. Greater transparency can improve independent oversight and reduce the scope for corrupt practices (Olken and Pande, 2012, pp. 502-504[35]).

Subnational governments in Africa often do not benefit from regular and predictable transfers. The City Enabling Environment Ratings[7] provide indicators on the quality of intergovernmental transfers in Africa. Graded on a scale from 1 to 4, only two countries (of 53 surveyed) achieve the highest grade, for countries where transfers are timely, predictable, calculated according to a transparent formula, and without restrictions on their use (Figure 5.8) (UCLGA, Cities Alliance, 2018[5]). Overall, only 7 countries meet the necessary conditions to ensure the quality and effectiveness of transfers (scoring between 3 and 4 in the City Enabling Environment Ratings).

Figure 5.8. Quality of fiscal transfers from national to local governments

City Enabling Environment Ratings

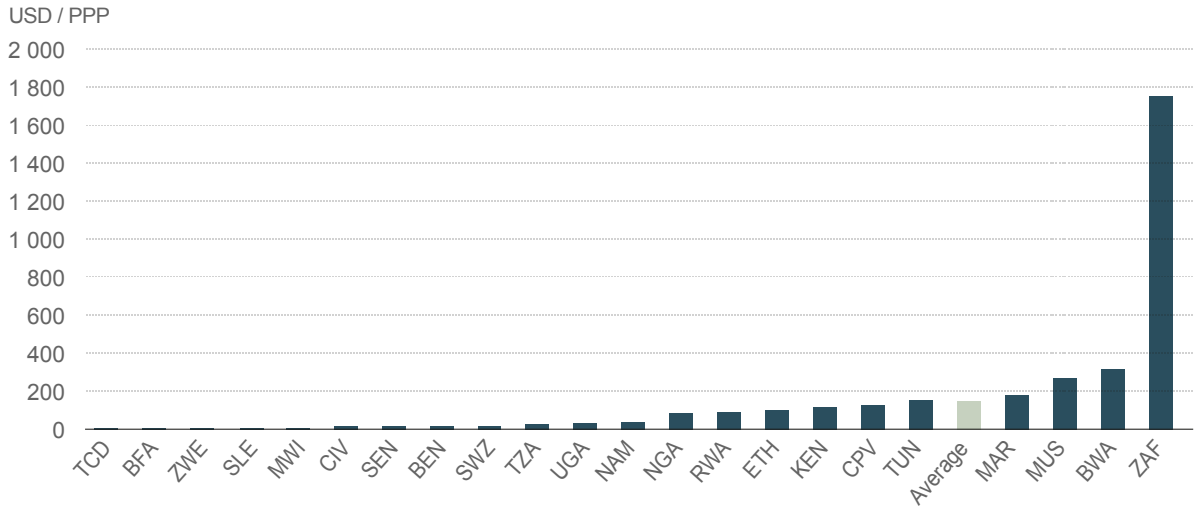


Note The data reported above has been extracted by the authors from the UCLG Africa report "Assessing the Institutional Environment of Local Governments in Africa" (third edition), 2018.

Source (UCLGA, Cities Alliance, 2018[5]), Assessing the Institutional Environment of Local Governments in Africa, https://www.citiesalliance.org/resources/publications/cities-alliance-knowledge/assessing-institutional-environment-local-0.

Although national government transfers are the dominant way of funding local governments, the actual amounts involved are limited (Figure 5.9). Subnational governments in Africa receive USD 159 per capita on average, against a world average of USD 1 124 per capita. Transfers in African countries are also low compared to countries at similar income levels. For example, the average per capita transfer for non-African lower middle-income countries is USD 282, compared to USD 103 per capita for corresponding African countries (OECD/UCLG, 2019[3]).

Figure 5.9. Per capita transfers and grants to subnational governments



Note Year of reference: 2016.

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Own-source revenues

Given the limited capacity of national governments to provide grants in a sufficient and regular manner, the weak fiscal capacity of many national governments and the increasing need for investment, it is unlikely that transfers will be able to cover the funding needs of local governments in the foreseeable future. Local governments thus need to raise more own-source revenues (Paulais, 2012[36]). This capacity will also depend on the existing institutional framework, such as the clarity of the division of competencies among different levels of governments, the administrative and financial capability of municipalities and the availability of instruments to track expenditures and follow projects. A country with established local governments and whose authority is recognised by its citizens will be in a better position to raise revenues than one where the power of local governments is contested.

Several autonomous financing instruments for local governments are possible, of which own-source taxes and fees are the most common. Land-based financing is another financing mechanism that can generate additional revenue, especially in fast-growing cities where the value of land rises quickly (Box 5.6). While land-based financing has been used successfully in many emerging economies (e.g. Korea, Brazil, India and Colombia) it has so far been used only to a limited degree in Africa. This is partly due to the complex land tenure systems in many countries and to weak land databanks.

Own-source revenues offer several advantages. First, they increase the accountability of local governments relative to the local population. Local tax payments are more easily observable for residents than transfers from national governments. Moreover, with a closer link between the payment of taxes and the provision of local services, local administrations face greater scrutiny on the use of own-source revenues than on the use of transfers. Effective accountability also has feedback effects that can increase revenues, thanks to increased public trust in local governments. Citizens who are able to see and understand the impact of their taxes on local services are likely to be more willing to contribute to the public purse (Rantelangi and Majid, 2018[40]; Kassa, 2021[41]). However, accountability is only increased where local governments have effective accountability mechanisms and local residents can hold local governments to account, both through fair elections and also through participatory planning and budgeting, town meetings, oversight boards, referenda, user committees or social audits (UN-Habitat, 2015[4]).

Box 5.6. Land value capture

Land value capture is a policy approach that enables communities to recover and reinvest increases in land value that result from public investment and government actions, such as rezoning of land from agriculture to urban. Common land value capture tools are property taxes and land leases, impact fees (i.e. fees charged for the provision of infrastructure), developer exactions (i.e. negotiated agreements for payments by developers), land readjustment (the restructuring of plots of land and the transfer of some land into public ownership for infrastructure provision) and betterment levies (i.e. charges to land owners whose land becomes more valuable because of the upgrading of infrastructure or the urban environment).

Land value capture is rooted in the notion that public action should generate public benefit. When used in conjunction with good governance and urban planning principles, land value capture can be an integral tool to help governments advance positive fiscal, social and environmental outcomes. Despite their benefits, land value capture mechanisms are only infrequently used. This can be due to unfamiliarity with the concept, lack of institutional capacity or a lack of political will.

Making greater use of land value capture faces several challenges. Successful implementation requires a thorough understanding of the intricate and complex factors at play, including the maturity of land markets, land use regulations, investment policies, enabling legal frameworks, fiscal and governance structures, as well as local circumstances and rooted traditions regarding land rights.

Note Text extracted from the Global Compendium on Land Value Capture flyer.
Source (OECD, n.d.[37]), Building a Global Compendium on Land Value Capture, https://www.oecd.org/cfe/cities/Flyer-Land-Capture-a4.pdf; (Germán and Ehrich Bernstein, 2018[38]), Land Value Capture: Tools to Finance Our Urban Future, https://www.oecd.org/cfe/cities/Flyer-Land-Capture-a4.pdf; (Berrisford, Cirolia and Palmer, 2018[39]), Land-based financing in sub-Saharan African cities, http://dx.doi.org/10.1177/0956247817753525.

A second benefit of own-source revenues are the incentives they offer local governments. Own-source tax revenues create powerful incentives to encourage economic development, because local economic growth will increase local tax revenues. In contrast, robust local economic performance does not affect the amount of transfers that local governments receive or, in the case of equalisation grants, may even reduce them.

Informational advantages of local governments are a third argument for own-source revenues. Local governments have a better understanding of specific economic aspects of households and businesses in their jurisdiction and identify effective methods to levy required revenues. Local officials, for example, can identify household revenues even in the absence of advanced data collection methods. This allows local governments to predict citizens' ability to pay and to devise efficient ways of using this information to determine taxes or fees. Likewise, local governments can identify citizens who are most in need and allocate social spending accordingly (Galasso and Ravallion, 2005[42]; Galiani and Gertler, 2008[43]; Alatas et al., 2012[44]; Alderman, 2002[45]).

Own-source revenues have been shown to result in better service delivery and infrastructure development. Research in Tanzania, Zambia and Ghana (Hoffman and Gibson, 2005[46]; Otoo and Danquah, 2021[47]) has found that fiscal autonomy is positively correlated with expenditure and quality of service delivery. Angola set up independent utility providers for water supply and sanitation in 2002, and by 2010, overall access to sanitation services increased in urban areas from 59% to 86% (African Development Fund, 2007[48]; USAID, 2010[49]).

To leverage the advantages of fiscal decentralisation (enhanced accountability, economic development incentive and local knowledge) institutional changes and improved local capacities are needed. Many local governments in Africa face institutional and legal constraints that limit their ability to raise own revenues and to function autonomously, for example by denying them the power to create new taxes or fees or to set the rates of existing taxes or fees (UCLGA, 2014[28]).

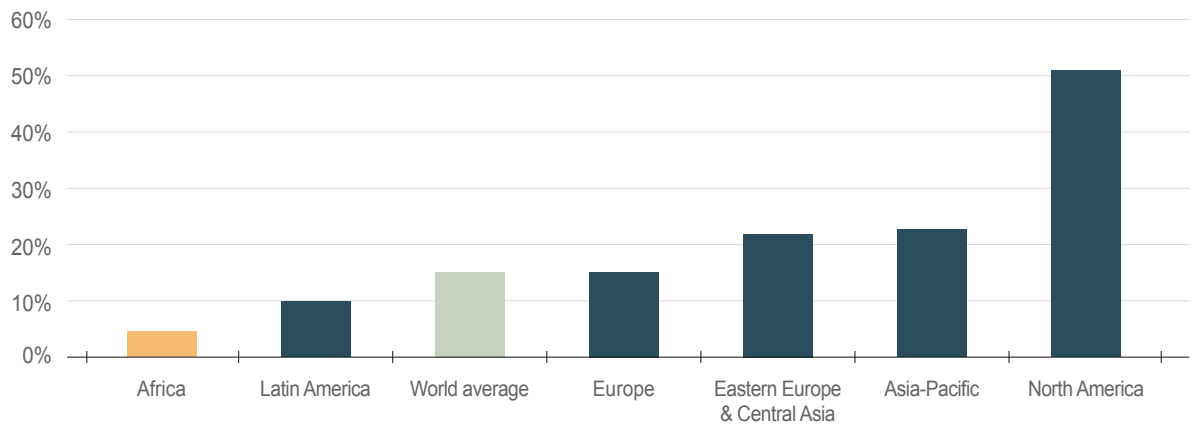
National governments' reticence towards fiscal decentralisation and autonomy is motivated by several factors. Fiscal autonomy is often perceived as a loss of political power, particularly in countries where the political leadership of national and local governments compete for power (Bahl and Bird, 2008[50]). Competition can further be aggravated in contexts with an overall low tax base and where national governments thus consider taxes as a legitimate source of revenue to meet their obligations. National governments may also be sceptical about the administrative ability of local governments to impose and collect taxes. As a result, according to the City Enabling Environment ratings, in 42% of African countries local governments do not have any power over local revenues (UCLGA, Cities Alliance, 2018[5]).

Local administrations need the administrative capacity and human resources that allow for effective deployment and management of own resources. In the case of taxation, local governments require extensive administrative knowledge and practical skills to identify the service, good or category of households to be taxed. This requires training and investment, which are essential for ensuring the tax is effective in its objective: raising local revenues.

Taxes

Taxes are a key instrument local administrations can use to raise revenue, but subnational governments in Africa have weak taxation powers and have great difficulties in employing taxation (AfDB/OECD/UNDP, 2015[51]; UCLGA, 2014[28]). The continent's subnational governments only raise 4% of the national government tax revenue (Figure 5.10) and subnational governments' tax revenues only generate 24% of the total revenue of subnational governments, as compared with a world average of 33% (Figure 5.11, columns). Governments of cities, although they create most of the taxable wealth, benefit from only a small share of total national taxes.

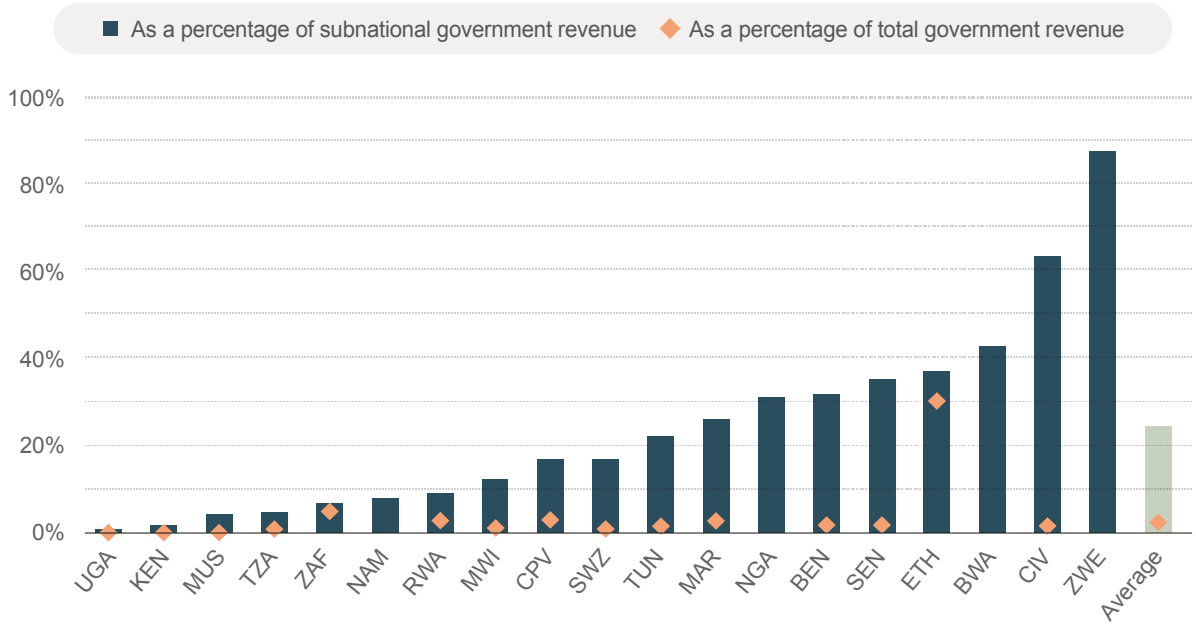
Figure 5.10. Tax revenue of subnational governments as a percentage of national government tax revenue



Note Data from the World Observatory contains tax revenue data for the following African countries: BEN, CIV, CPV, ETH, KEN, MAR, MUS, MWI, RWA, SEN, SWZ, TUN, TZA, UGA, ZAF.
Year of reference: 2016.

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Figure 5.11. Subnational government tax revenue



Notes Data from the World Observatory contains tax revenue data for the following African countries: Tax revenue as a percentage of subnational government revenue indicator: BEN, BWA, CIV, CPV, ETH, KEN, MAR, MUS, MWI, NAM, NGA, RWA, SEN, SWZ, TUN, TZA, UGA, ZAF, ZWE; tax revenue as a percentage of government revenue indicator, see Figure 5.10.
Year of reference: 2016.

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Most commonly used taxes by local governments are on property, sales and various business taxes. Property taxes have a number of desirable properties related to their economic efficiency, immobile base and suitability for local use (UN-Habitat, 2016, pp. 192-215[52]). They accounted for all the tax revenue of local governments in Eswatini, Mauritania and Mauritius and for more than 80% in Morocco (OECD/AUC/ATAF, 2020[53]).

The effectiveness of taxes as instruments to fund local government depends on several conditions. In order to be *equitable*, taxes need to treat different groups fairly. To be *efficient*, taxes need to be applied in a way that does not distort economic activity. That is, they should not lead to major changes in the behaviour of individuals or firms unless this is an explicit objective of the tax (e.g. a tax on cigarettes that aims to reduce rates of smoking). Moreover, immobile tax bases should not fluctuate widely, as economic conditions change to provide a stable income. Finally, taxes need to be *economic* in their implementation, with low administrative and compliance costs (Evans, 2003[54]); and *transparent* in their enforcement and use. Clarity on what is being taxed and how the amount will be spent increases citizens' willingness to comply and increases the accountability of local governments for delivering the public services they are committed to (Bird and Bahl, 2008, p. 9[55]). Tax revenue local governments raise should also be levied exclusively on local residents or businesses, to avoid local officials taxing a population to which they are not accountable (Bird, 2010[56]).

Developing effective local tax systems requires investment in human and technical capacity as well as political will. The most common challenges faced by local governments involve identifying the tax base, collecting taxes and enforcing payment.[8]

Identifying the tax base, for instance, requires information on businesses' revenue (business tax) or on land ownership and value (property tax, land tax). Many local governments in Africa, however, face a complete lack of relevant and up-to-date data, given the widespread informality of the economy and land registries that are missing or outdated (Gordon and Li, 2009[57]; Skinner, 1991[58]). UCLG Africa's survey of 153 cities demonstrated that an estimated 23% of cities did not have any instrument in place to address the collection of data on land property (UCLGA, 2014[28]). If they do exist, these systems are often lacking or incomplete (OECD/AUC/ATAF, 2020[53]).

Improving the ability of local governments to collect required data and track tax compliance requires investment in appropriate training and digital infrastructure. Despite the costs associated with improving the data collection systems and enforcement levels, these can pay off by expanding municipal revenues dramatically. As an example, Lagos' administrative reforms of property tax collection since 1999 have increased its revenue fivefold, to over $1 billion in 2011 (IGC, 2018[59]). The AfDB is financing an own-revenue project in the Ivory Coast called *Projet Pilote d'Appui à la Mobilisation des Revenus Propres des Communes de Côte d'Ivoire* (PAMREC), which will digitise tax collection and is expected to at least double revenues after three years of implementation.

Local governments need the power to experiment with revenue collection to find equitable, efficient ways of taxation (Bird and Bahl, 2008[55]). This can be done, for example, by granting them more freedom to define the tax base (Box 5.7).

Box 5.7. Property tax: Freetown's innovative ratings system

The value of the property taxed is generally considered as the basis for calculating property taxes. The land surveys required to value properties for property tax collection often involve a lengthy and costly process. This method also frequently results in unreliable valuation of the property, because of the limited transaction evidence in African real estate markets.

A points-based system developed in 2018 by the valuation department of Freetown in Sierra Leone aims to cut these costs and create a fairer rating of properties, based on objective characteristics.

The points-based system is a hybrid methodology that takes into consideration the surface area of the building and key characteristics that determine its value, namely location, access to services and building quality (Grieco et al., 2019[60]). As a result, the tax register increased by over 100%, from 30 134 to over 97 413 properties registered in its first year of its implementation (Freetown City Council, 2021[61]).

Source (Freetown City Council, 2021[61]), Transform Freetown: Second Year Report January 2020 January 2021, https://fcc.gov.sl/wp-content/uploads/2021/02/Transform-Freetown-2-Year-Report_Final.pdf.

Granting more fiscal power to local governments has the additional benefit of enhancing financial responsibility, and the potential second effect of improving their financial competence (Bahl and Bird, 2008[50]). It can be achieved by incorporating local taxation into clear national frameworks, in which national governments can set tax rates ranges and determine the general direction of local taxation powers. This structure will help avoid such phenomena as double taxation, tax exportation and excessive tax competition[9] (Fjeldstad, Chambas and Brun, 2014[62]). Moreover, such frameworks, and the specific regulations that structure local taxation, are also required to avoid situations in which citizens and businesses are subject to complex and confusing taxation systems that may hinder compliance and limit economic performance.

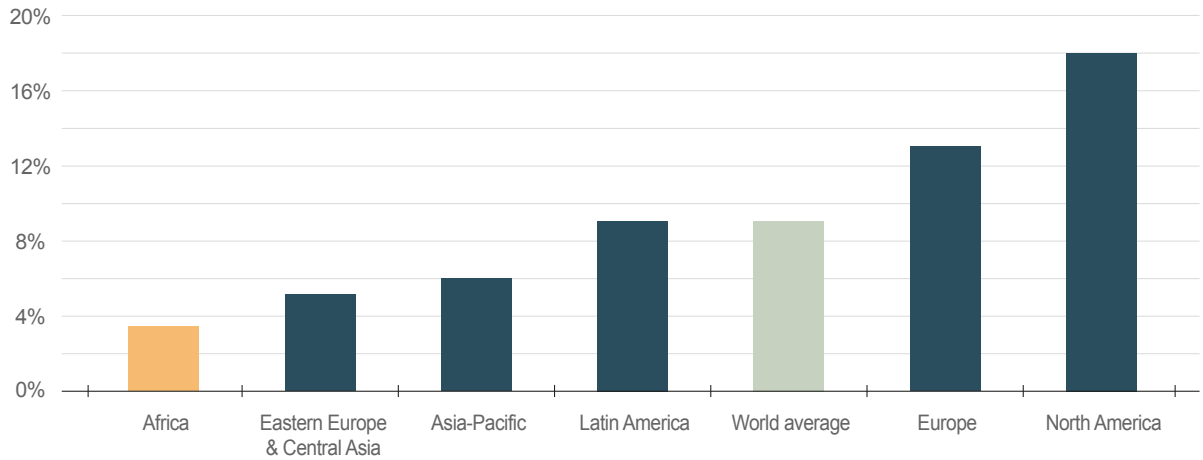
User charges and fees

User charges and fees are an efficient way for local governments to raise revenues. In contrast to taxes, fees are charged to users of public services proportionally to their use. Thus, residents who do not use a public service generally do not have to pay fees. Payment of fees is often easier to enforce than payment of taxes. For many services, such as transportation services, it can be relatively easy to institute controls that avoid free-rider behaviour. Fees are also more transparent than taxes, because they are directly linked to the benefit they deliver. They may thus win greater public acceptance than taxes (UN-Habitat, 2015[4]).

Local governments in Africa have generally wider power over fees than over taxation, but only 3.5% of

subnational governments revenues are raised in this way (Figure 5.12). Often, the inability to finance the initial investment required to provide a service or infrastructure explains the low levels of revenue linked to this instrument.

Figure 5.12. Tariffs and fees as a share of total subnational government revenue



Note The dataset from the World Observatory only captures tax revenue data for the following African countries: BEN, BWA, CIV, CPV, ETH, KEN, MAR, MUS, MWI, NAM, RWA, SWZ, TUN, TZA, UGA, ZAF, ZWE.
Year of reference: 2016

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Several obstacles impede their deployment. Firstly, fees and tariffs are enforceable only if the service can be provided effectively. Often, inability to finance the initial investment required to provide a service or infrastructure explains the low levels of revenue linked to this instrument. Secondly, it can be complex to set the right level of fees to guarantee the maintenance and repayment of the investment, particularly when also considering the ability of users to pay. Thirdly, even if fee collection is usually easier than tax collection, political or administrative challenges can make it impossible for local authorities to collect fees. Difficulties in enforcing compliance is heightened if trust is low in the local government and in the way the collected revenue will be spent (Fjeldstad, 2004[63]).

Despite these limitations, fees can be an effective way to pay for investments and specifically their maintenance, in particular if combined with debt financing. To obviate the difficulties outlined above, these services are sometimes outsourced to private entities, entrusted with the delivery of the service and the collection of associated fees (Box 5.8).

Box 5.8. Service and infrastructure provision by non-governmental entities

Rather than providing services or investments themselves, local governments can delegate the task to non-public actors and give them the right to recoup the costs of the service provision or infrastructure investment through fees. This can alleviate financial pressure and secure investments that would not otherwise be made. However, relying on the private sector for service or infrastructure provision creates risks that need to be managed.

Delegating public service provision to for-profit private companies can be justified by the positive effect of reducing the costs associated with it. The company will have an incentive to improve profitability, by running the business efficiently and effectively, ensuring the quality and reliability of its services (UCLGA, 2014[28]; Boubakri, Cosset and Guedhami, 2005[64]; Ogaboh and Nkpoyen, 2010[65]). Gains in efficiency, however, are not a given, and run the risk that the private company may be less efficient in providing services than the public sector, especially when public service provision functioned well.

A key condition for ensuring the quality and efficiency of privately provided services is adequate regulation that provides the right incentives to private service providers. Without this, the private service provider may reduce the quality of the service or increase prices in order to maximise profits. This is especially true if the service provider faces no outside competition and if long-term contracts are established that further protect the provider from competition. Selecting sectors for private service that can be adequately regulated and that allow for large efficiency gains is essential for success.

Quite apart from defining the right category of services to privatise, further difficulties can arise if the parties have insufficient understanding of the costs or the ideal methods of delivering a service. This may make it difficult to create adapted incentives, and run the risk that private entities may abuse their position, increase costs or sacrifice quality. The result may be either a poorer service, a service that is unaffordable or unavailable to a large part of the population, or both (Grout, 2009[66]).

Note Please refer to Rao (2015[67]) for additional detail on different models of service provision and for case studies.
Source (UN-Habitat, 2015[4]; Gadenne and Singhal, 2014[68]), The Challenge of Local Government Financing in Developing Countries, https://unhabitat.org/the-challenge-of-local-government-financing-in-developing-countries-0; (Gadenne and Singhal, 2014[68]), Decentralization in Developing Economies, http://dx.doi.org/10.1146/annurev-economics-080213-040833.

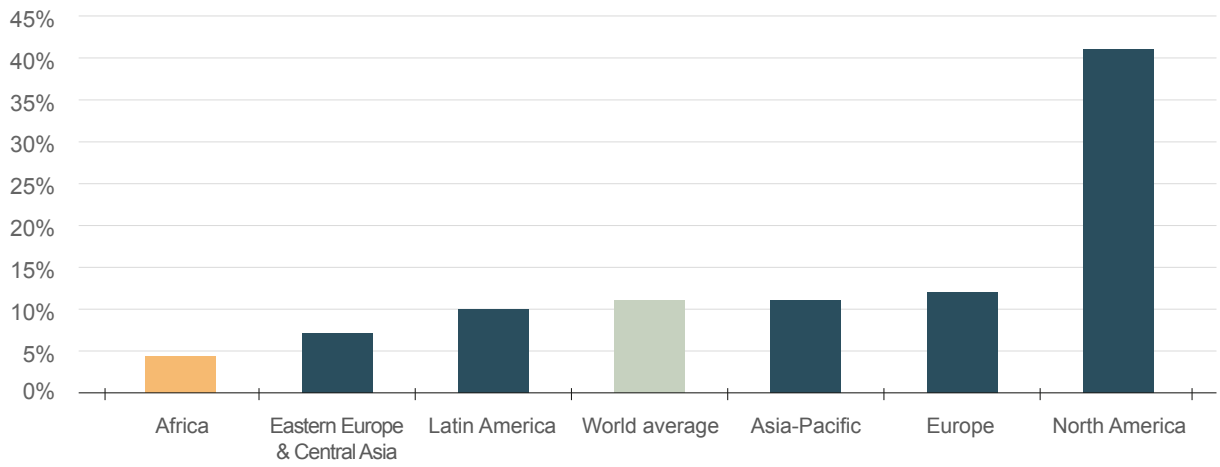
Debt financing

Access to credit and the ability to borrow capital, especially denominated in local currency, is a key financial resource for local governments to meet the cost of infrastructure investments. Investments such as the construction of roads, transit systems, education and health facilities require large sums of capital. In absence of savings that can be used for investments, local governments can bridge this temporary gap through credit.

Capital borrowed for long-term investments can support the revenues of local governments in two ways. Directly, investments pay off financially through the immediate revenue stream they realise in fees for service. Indirectly, investments pay off financially for local governments, through the economic growth they generate and the increase in tax revenue. Investment may also pay off through higher tax revenues by increasing economic activity (enhancing the business climate with better facilities such as markets, better market connections and lower costs from, for example, a reduction in congestion due to new roads).

Debt financing plays a major role in enabling public investments in key urban infrastructure, but in Africa, local governments' access to credit is severely limited. The UCLG Africa survey of African cities shows that only 6.5% of the 153 cities sample studied had access to credit (UCLGA, 2014[28]). Figure 5.13 shows how subnational governments' debt makes up a small percentage of total government debt (4.4%), well below the global average.

Figure 5.13. Subnational government debt as a percentage of national government debt



Note Gross debt includes the sum of the following liabilities: currency and deposits, debt securities, loans, insurance pension and standardised guarantees, other accounts payable. Most debt instruments are valued at market prices. The dataset from the World Observatory only captures tax revenue data for the following African countries: KEN, MAR, NGA, RWA, SEN, TZA, UGA, ZAF.
Year of reference: 2016.

Source (OECD/UCLG, 2019[3]), OECD/UCLG World Observatory Database (SNG-WOFI), https://stats-1.oecd.org/WBOS/index.aspx.

Legal restrictions imposed by national governments and difficulties in financial structuring and perceived and actual creditworthiness are key factors that explain local governments' low access to and infrequent use of credit to finance public investments. Only 6% of African cities are allowed by national legislation to access financial markets independently (UCLGA, Cities Alliance, 2018[5]).

Both explicit and implicit institutional constraints limit local governments' ability to access credit. Explicit constraints generally include laws that prohibit them from accessing credit or that require prior authorisation from the national government. Implicit constraints originate in legal texts that established these authorities in the first instance, which often predate decentralisation policies and have not been updated since (UCLGA, 2014[28]). To improve local governments' access to credit, laws and regulations that determine the workings of local governments need to be updated, creating structured institutional frameworks that allow regulated access to financial markets and private loans (BOAD, 2015[69]).

Even where local governments are allowed to use debt financing, they may not be able to access it. To obtain credit, a borrower needs to demonstrate the ability to repay the sum in full (capital) and the service fees associated with the loan (the interest rates and the fees for managing the loan) or furnish an implicit or explicit guarantee of repayment in case of default by national or international partners. Authorities can demonstrate creditworthiness through stability of income, cost-benefit analysis of the project being financed and by a clear political commitment to repay the debt (e.g. as shown by previous repayment of loans). Local governments, however, often do not have the capacity to demonstrate sufficiently stable income streams, for example because the intergovernmental transfers they rely on for repayment are not predictable or punctual. Even where local governments meet the fiscal criteria to obtain a loan, they may not be able to provide the necessary documentation, due to a lack of administrative capacity.

According to UCLG Africa (2014, p. 30[28]), up to 30% of African cities surveyed use no modern financial management instruments. Outdated registers of population, income and real property, which are essential to estimating the tax base and projecting potential future income, also limit their potential to raise money. Another risk generally linked to credit is political instability (UN-Habitat, 2015[4]). National governments need to develop consistent standards and rules, including regular audits, to facilitate access to and promote effective use of debt financing.

Loans by development institutions

The most common source of credit for local governments in Africa are loans from development

institutions (UCLGA, 2014[28]). National entities, such as national development banks and public investment funds specialised in financing local governments, are often responsible to allocate these loans. They are state-owned and finance themselves through sovereign debt, donors and financial markets. Table 5.1 lists some of the active bodies of this kind in Africa.

In addition to the role of loan providers, these entities are often committed to other objectives, such as building local administration capacity, supporting public bodies' access to financial markets and promoting public-private partnership. One such institution, the Urban Development Bank (UDB) in Nigeria, has all of these competencies. Another entity, Tunisia's Local Government Loan and Support Fund (CPSCL), is also responsible for the allocation of subsidies on the national state's behalf.

National development banks and public investment funds offer an attractive solution to funding urban development projects, thanks to the preferential terms they offer. Successful projects completed by Nigeria's UDB include reconstruction of municipal car parks, upgrading of local markets and provision of services (Urban Development Bank, 2021[70]). In Morocco, the Municipal Equipment Fund (FEC) recently signed an agreement with the *Agence Française de Développement* (AFD), the French development agency, to provide resilient infrastructure (AFD, 2021[71]).

Table 5.1. National development institutions for local development

Country	Specialised entity
South Africa	Development Bank of South Africa (DBSA)
Nigeria	Urban Development Bank (UDB)
Morocco	*Fond d'équipement communal* (FEC – Municipal Equipment Fund); *Caisse de Dépôt et de Gestion Développement* (CDG Dev. – Investment and Management Fund for Development)
Tunisia	*Caisse de prêts et de soutien des collectivités locales* (CPSCL – Local government loan and support fund)

Source (Paulais, 2012[36]), Financer les villes d'Afrique. L'enjeu de l'investissement local.

Donors and development banks can also play a role in offering credit to local governments. The municipality of Dakar, in Senegal, developed one such project in 2015, involving XOF 10 billion (EUR 15.2 million) in financing from the West African Development Bank (BOAD) and AFD, to construct urban roads and parking (BOAD, 2015[69]). To increase their capacity to support local governments, international donors have sometimes raised funds in local currency. In 2008, for example, an AFD bond issue on the regional stock exchange in Abidjan (*Bourse Régionale de Valeurs Mobilières*) raised USD 40.1 million that was used to finance local governments through its subsidiary PROPARCO (Paulais, 2012[36]).

Private loans

Commercial banks can also help finance local governments. Such loans, however, tend to be short-term and motivated by the need to regularise budgets with punctual cash-flow issues rather than for public investment (UCLGA, 2014[28]; UCLG, 2010[12]). In some instances, longer maturities are granted for urban projects, but only for a few specific sectors and projects, such as the financing of special economic zones, power and data centres. Banks are typically risk-averse and reluctant to conclude loans with authorities that do not have reliable credit scores and evidence of financial performance. Obstacles to private lending can also be imposed by national legislation. To limit public debt and public entities' risk of default, national governments may establish strict regulations that forbid or limit access to private credit (Bird, 2011[72]).

It is essential for investors to understand the risk of default in any given investment. Credit ratings and creditworthiness checks by independent rating agencies and other private companies can help in this regard. Cities may have difficulty, however, accessing private agencies' rating systems because of their poor financial management systems. Self-evaluations, like the one established by the Institute for Delegated Management (Garnache and Van De Vyver, 2008, p. Annex 4[73]), are another option for demonstrating creditworthiness. Another useful alternative is offered by the Public Expenditure and Financial Accountability programme (PEFA), a system established in 2001 from donors (see Box 5.9).

Box 5.9. Public Expenditure and Financial Accountability (PEFA)

The Public Expenditure and Financial Accountability (PEFA) programme uses quantitative indicators to measure the performance of local governments in public financial management. It identifies 94 characteristics across 31 key components of public financial management in seven areas of activity. Donors and investors can use this data to determine the feasibility of investment projects in the jurisdictions analysed.

The tool measures several indicators, in two main categories: political and budgetary. Whilst the first category aims to measure the existence of democratic procedures, the second considers three factors:

- budget credibility
- coverage and transparency of the budgetary systems
- efficacy of the budgetary cycle

The result of this assessment reflects the creditworthiness of the government, but also what actions that can be taken to improve the score. It is thus recommended to repeat the assessments every three years to measure progress.

African context

The 2016 evaluation of the PEFA program reported that 32% of all assessments were carried out in sub-Saharan Africa, an indication of the local demand for such services. Today, 168 subnational authorities in the continent across 21 states have used the service.

Note Text extracted from PEFA's website.
Source (PEFA, n.d.[74]), Public Expenditure and Financial Accountability (PEFA), https://www.pefa.org/about; (Swedish Development Advisers for PEFA Secretariat, 2016[75]), Evaluation of the PEFA Program, https://www.pefa.org/resources/evaluation-pefa-program-2016.

Bond issuance

The third source of credit is issuance of bonds on financial markets. Bonds usually offer longer maturities than many commercial loans, but they are not widely used by local governments in Africa. In many countries, bond markets are not well developed, and local governments have neither the capacity to meet the formal and informal requirements for accessing the bond markets or the institutional authority to issue bonds. The formal requirements can lead to capacity gaps between local administrations and large investors, in which local government officials do not fully capture the extent of the obligations they take on when issuing bonds. This is especially the case when bonds are issued in foreign jurisdictions under different legal systems.

In some cases, national governments are reluctant to grant local government the authority to issue bonds and/or restrict them from doing so. Such constraints also affect local governments that do have the capacity to comply with the formal requirements. New legislative requirements and amendments, adapted to the given context, are needed to develop bond markets and provide access to investment for local governments. Kampala's case is particularly striking. The city received investment-grade credit ratings to issue bonds on the stock market that were later constrained by the Kampala City Act, 2010, which limits the amount of debt the city can issue to 10% of the local revenue that the local government generates annually. Without a legislative amendment that raises this cap, issuing bonds for the city is not worthwhile (Gorelick, 2018[76]).

Lagos State in Nigeria offers a successful example of bond issuance. Between 2008 and 2011, the state issued bonds to finance transport, employment zones and highways, all sectors the state identified as priorities. The bonds' success demonstrated the availability of domestic savings in the region and the eagerness to invest. Lagos State has continued to issue domestic bonds for Nigerian investors ever since.

For local authorities to issue bonds is thus not an easy option, but if more resources are to be found to finance urbanisation, better access to this type of market for institutions that specialise in city financing

needs further exploration. Tunisia's *Caisse des Prêts et des Soutiens de Collectivités Locales* (Common Loan Fund) offers another instance. It only benefited once from a bond issuance, but did not continue to solicit the market. This was probably due chiefly to the availability of public resources (resources on concessional terms), which were easier to mobilise and less costly, but which continue to depend on the government.

Notes

1 Most data in this chapter refers to subnational governments, which include local and regional governments, because no further breakdown is available.

2 Fiscal capacity is intended here to mean the ability of this level of government to raise revenue autonomously.

3 This international charter has been ratified by 17 of the 55 African countries. The latest, Togo and Rwanda, signed the Charter in 2019 (African Union, 2014[77]).

4 Neither are representative of all African countries. Mauritius is an island state, while South Africa, where 69% of public investment is devolved to subnational governments, is one of the few federal countries in Africa.

5 In the Subnational Governments World Observatory dataset, transfers and grants are defined as follows: "transfers to subnational governments from the national government (representing the great majority) but also from higher levels of government (state or regional governments) and from international organisations (e.g. European Union structural funds, international aid, etc.). They comprise current and capital expenditure grants (…)". It is important to note that shared tax revenues are not included in this definition (OECD/UCLG, 2019, p. 68[18]).

6 Such grants are also referred to as "shared taxes".

7 Since 2012, the United Cities and Local Governments of Africa (UCLG Africa) and Cities Alliance have surveyed 53 African countries to understand the institutional environments of local authorities on the continent. The City Enabling Environment Ratings "examines the institutional conditions created by the different countries in favour of the initiatives and actions of their respective local and subnational governments" (UCLGA, Cities Alliance, 2018, p. 7[5]). The ratings consider the following areas: local governance, financial autonomy, local efficiency and national institutional environment. The third and latest edition was published in 2018, and can be accessed on the UCLG Africa website. Jean Pierre Elong Mbassi's contribution to Chapter 6 of this report also adds detail and insight on these ratings.

8 Taxation requires governments to specify a tax base, which may be composed, for example, of citizens' income, the value of land, businesses' profits or transactions that will be taxed.

9 Tax competition can be positive, as it incentivises local governments to ensure that public expenditure is efficient and that costs for residents are reduced. However, competition without regulation may result in a "race to the bottom", with suboptimal delivery of services and infrastructure and laxer enforcement of standards and rules (Wilson, 1999[81]).

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6

Perspectives on Africa's urbanisation from policy makers and experts

This chapter includes contributions from five high-level policy makers and experts who follow, contribute to and influence the evolving policy debate on urbanisation in Africa. The essays represent a diversity of views on the potential of urban economies, the challenges and the policies needed to achieve sustainable and inclusive economic prosperity.

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Jean Pierre Elong Mbassi
Secretary General, United Cities and Local Governments of Africa

Which national and local policies can enable local governments to play a greater role in the socio-economic development of Africa?

Most of Africa's population will soon live in cities. Its cities will continue to grow rapidly, and projections indicate that by 2050, they will be home to an additional 950 million inhabitants (OECD/SWAC, 2020[1]). Cities already produce 60% of the continent's GDP. Increasingly Africa's economic future will be tied to their attractiveness, economic performance and proper functioning.

Decentralisation policies have given cities and rural areas a greater role to play in Africa's socio-economic development. These policies recognise subnational and local governments as local public authorities with the administrative and financial autonomy to develop public policy at the municipal and regional level, by applying national policies or modifying them to fit specific and varied contexts.

The political will for decentralisation was confirmed at the highest levels by African Union heads of state and government in 2014 in Malabo, Equatorial Guinea, when the African Charter on the Values and Principles of Decentralisation, Local Governance and Local Development was adopted as an African Union instrument. The adoption of the Charter showed that Africa's highest-ranking officials appreciate the magnitude of the contribution of cities and rural areas to the structural transformation of Africa and that they would like to see it amplified, to reinforce the continent's socio-economic development.

Four key issues must be considered for subnational and local governments to achieve the desired results: 1) strengthening the implementation framework for decentralisation; 2) organising the financial relationships between national and subnational governments; 3) improving the performance of subnational government administrations; 4) engaging subnational and local governments in strategic planning.

Strengthening the decentralisation policy implementation framework

All African countries that have adopted a decentralisation policy see it as a way of anchoring democracy and improving the governance of public affairs through a more direct relationship between the contributions made by the citizenry in the form of taxes and fees, on the one hand, and the services they receive from subnational and local governments in return, on the other hand. It is assumed that subnational and local public authorities are more effective than national administrations at meeting the needs and expectations of the people.

Nevertheless, national administrations continue to perform duties that are legally recognised as falling under the authority of subnational governments, despite the provisions in the laws and regulations governing the transfer of authority to local governments. This is being done despite the formal recognition of the role of local public authorities in the people's expectation of participating in the management of their own affairs and their access to essential services. In practice, this is still being carried out by representatives of line ministries on the ground. This effectively perpetuates the practice of working in silos at the subnational and local level, a practice that is condemned at the national level. This situation introduces uncertainties over the autonomy of subnational and local governments in initiating and conducting local affairs. It is also likely to lead to a crisis of confidence between the people and public authorities at the city and local level, developing into a broader crisis of confidence between the people and public authorities in general, whether national or local, and provoking a general governance crisis within society. This lack of progress on decentralisation is without doubt the biggest obstacle preventing subnational and local governments from playing a more significant role in Africa's socio-economic development.

Every three years since 2012 and in collaboration with Cities Alliance, United Cities and Local Governments (UCLG) Africa has conducted an evaluation of the institutional environment established by national governments in Africa to encourage initiatives and actions undertaken by subnational and local governments (UCLGA, Cities Alliance, 2018[2]). In 2018, the institutional environment created by the national government was judged "favourable" or "somewhat favourable" to the initiatives taken by cities and local governments in 16 out of 53 countries, while 37 countries were ranked "overall unfavourable" or "not at all favourable" (Figure 6.1). In other words, much work remains to be done before the political will expressed at the highest levels becomes a reality. That work will need to include: clarifying the roles and competencies of public authorities at the national, subnational and local level; promoting co-operative governance

between the national and local levels by effectively implementing the principle of subsidiarity; and better co-ordinating public policies on the ground by adopting a local approach to development, to balance the sector-based approach widely favoured until now. This effort should also give subnational and local governments the opportunity to open up to decentralised partnerships for co-operation, in initiatives that would include intercommunal co-operation programmes and decentralised cross-border co-operation programmes.

Figure 6.1. Country results for 2012, 2015 and 2018 based on the quality of the national institutional environment

2012		2015		2018	
South Africa	33	South Africa	35	South Africa	37
Uganda	31	Uganda	34	Uganda	35
Morocco	30	Morocco	31	Tanzania	32
		Kenya	30	Morocco	31
Kenya	28	Zambia	29	Kenya	29
Rwanda	28	Rwanda	28	Zimbabwe	29
Ghana	26	Tanzania	28	Ghana	29
Tanzania	25	Zimbabwe	28	Rwanda	28
		Benin	27	Zambia	28
Botswana	24	Ghana	26	Benin	28
Nigeria	24	Namibia	25	Senegal	27
Senegal	24	Senegal	25	Sierra Leone	27
Cameroon	23	Swaziland	25	Burkina Faso	26
Gabon	23			Burundi	25
Namibia	23	Botswana	24	Swaziland	25
Zimbabwe	23	Burundi	24	Niger	25
Niger	23	Malawi	24		
Sierra Leone	23	Niger	24	Madagascar	24
Benin	22	Nigeria	24	Cameroon	24
Burkina Faso	22	Burkina Faso	23	Malawi	24
Burundi	21	Cameroon	23	Namibia	24
Eritrea	21	Gabon	23	Côte d'Ivoire	24
Chad	21	Mali	23	Gabon	23
Mauritania	21	Mauritania	23	Mauritania	23
Lesotho	21	Sierra Leone	23	Botswana	23
Swaziland	21	Chad	23	Mali	23
Gambia	21	Eritrea	21	Nigeria	23
Ethiopia	20	Gambia	21	Tunisia	23
Angola	20	Lesotho	21	Chad	22
Algeria	20	Algeria	20	Eritrea	21
Tunisia	20	Angola	20	Seychelles	21
Zambia	20	Côte d'Ivoire	20	Lesotho	21
Côte d'Ivoire	20	Ethiopia	20	Gambia	21
Mali	20	Madagascar	20	Djibouti	20
				Ethiopia	20
				Angola	20
				Algeria	20
				Guinea	20
São Tomé and Príncipe	19	São Tomé and Príncipe	19	São Tomé and Príncipe	19
Djibouti	18	Tunisia	19	Togo	19
Malawi	18	Djibouti	18	Comoros	18
Madagascar	17	Republic of the Congo	17	Republic of the Congo	18
Republic of the Congo	17	Egypt	17	DR of the Congo	18
Equatorial Guinea	17	Guinea	17	Equatorial Guinea	17
Egypt	17	Equatorial Guinea	17	Egypt	17
Mozambique	16	Mozambique	17	Mozambique	17
Togo	16	Togo	16	Liberia	14
Seychelles	15	Comoros	15	Guinea-Bissau	13
DR of the Congo	15	DR of the Congo	15	Central African Republic	13
Guinea-Bissau	14	Seychelles	15	Sudan	13
Central African Republic	13	Guinea-Bissau	14	Somalia	12
Comoros	12	Central African Republic	13		
Somalia	12	Somalia	12		
Sudan	12	Sudan	12		
Liberia	11	Liberia	11		

Source Assessing the institutional environment of local governments in Africa 2018, 3rd Edition

Organising financial relationships between states and subnational and local governments

Africa's subnational and local government revenues, as a share of total public revenues and of GDP, are the second lowest in the world, at 12.3% and 3.3% respectively (Figure 6.2).

Figure 6.2. Financial autonomy of local authorities in Africa lags far behind global averages

Sub-national government revenue,
% of total public revenues and % of GDP (2013)

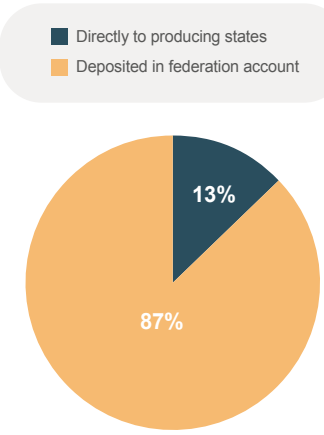
Region	% of public revenues	% of GDP
Africa	12.9	3.3
Asia-Pacific	35.0	10.4
Eurasia	25.5	8.2
Europe	27.7	12.0
Latin America & the Caribbean	21.2	5.8
Middle East & West Asia	9.8	3.2
Northern America	63.1	22.7

Source: UCLG

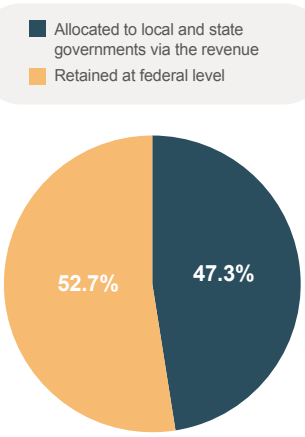
Africa's sub-national government revenues, both as a percentage of total public revenues and of GDP, are the second lowest after the Middle East & West Asia region.

In 2017, Tanzania devolved 21.8% of public revenues to its subnational governments, followed closely by Uganda and Mali (18.2% and 14.0%, respectively). Meanwhile, the figures for Benin, Burkina Faso, Chad, Guinea, Malawi, Niger and Togo are all below 6.0%.

Monthly oil revenue allocation



Federation account allocations



NRGI and UNDP

Local financial independence: Mostly limited

In **Ghana**, the District Assemblies are tasked with raising taxes, while the District Assemblies Common Fund ensures that funding from the central government reaches each district, based on a needs-based equalisation formula. While providing only 37.0% of district income, this system ensures that local government receives a guaranteed amount of income which can be used at its discretion, thus providing some amount of financial independence.

Ethiopia's fiscal decentralisation guarantees each level of government the capacity to finance its own development. Fiscal decentralisation remains limited, however, as central government controls 80.0% of income resources, such as taxes on international trade, leaving only 20.0% for the regions.

In **Nigeria**, the oil revenue redistribution system benefits all levels of governments. It is a complex intergovernmental transfer system that is based both on indicators and derivation. The country allocates no less than 13.0% of oil revenues to nine producing states by derivation. The rest (87.0%) is pooled with other fiscal revenues and redistrbuted across all states. Of the pool, about 47.3% is allocated to states and municipalities based on a formula that considers factors such as population size, social development efforts and revenue-raising efforts. The remaining 52.7% is allocated to central government.

World Bank

Source (Mo Ibrahim Foundation, 2018, p. 41[3]) Public Service in Africa, 2018 Ibrahim Forum Report

Traditionally, subnational governments have two revenue streams: financial transfers from the central government resulting from the devolution to subnational and local authorities of competencies previously attributed to national authorities; and own financial resources of subnational and local government, generated by applying the principle of free administration and financial autonomy of subnational governments.

In most African countries, the implementation of decentralisation is uneven, due to the fact that the transfer of competencies to subnational and local governments is often not accompanied by a transfer of the requisite resources. The regulations governing financial transfers from national to local governments are generally speaking imperfect, with the amount of the transfers and their timing unpredictable. This situation makes it especially difficult for Africa's subnational governments to account for transfers when drafting their annual budgets. This situation can be further complicated when subnational and local government leaders are not of the same political stripe as those in power at the national level.

For that reason, one of the improvements most frequently requested by national local government associations involves earmarking a predetermined percentage of the state budget for allocation to subnational and local governments. Another involves adopting an objective and democratic formula for dividing up the financial resources that central governments allocate to subnational and local governments and establishing transparent procedures for channelling the agreed-upon funds to subnational and local budgets. Setting up a fund jointly managed by the ministry of finance, the ministry of local government and the national association of local governments, into which state grants to local governments are deposited, is often proposed as one of the best ways to make financial transfers from the national to subnational governments more efficient and predictable. For the second level of local government, it has been suggested that regional-state contracts be set up for programmes in which the division of responsibilities and the flow of financial resources are negotiated and decided on in advance.

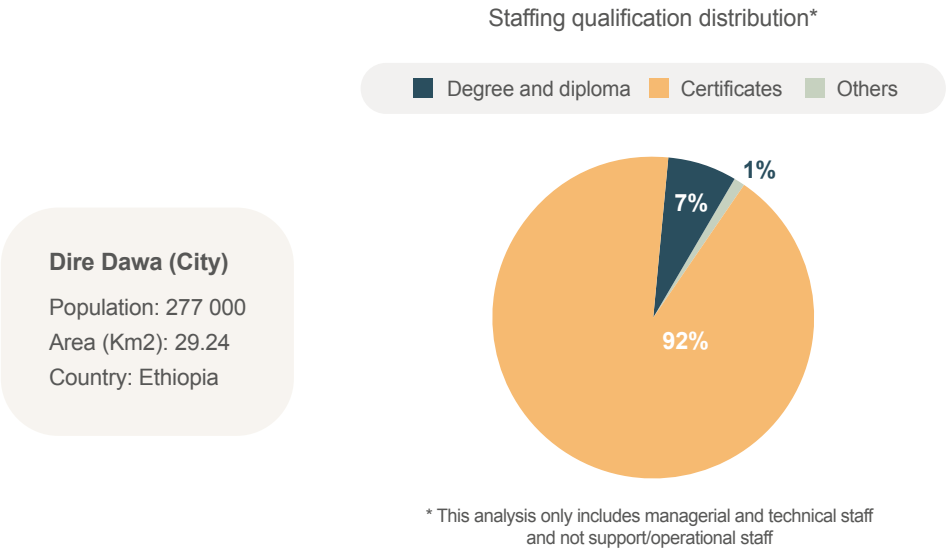
The ability of subnational and local governments to mobilise their own resources is a function of the degree of autonomy established for them in laws and regulations governing the imposition of taxes, duties and fees; the setting and evaluating of duties, fees and tax bases; and collecting these duties, fees and taxes. The situation for subnational and local governments varies and often depends on the administrative culture inherited from the colonial era. The leeway of subnational and local governments in Francophone countries is much more limited than it is for their counterparts in English-speaking countries. In Francophone countries, the single-till rule applies, under which all subnational and local government public monies are paid into the Treasury's coffers. This limits the scope of local financial autonomy, since a municipality can be entitled to Treasury resources without being able to use them, because the national state may have allocated them to some other use. (In municipalities in most Francophone countries, setting the tax base and collecting taxes are the responsibility of the national fiscal administration, whose main priority is to meet the needs of the national state. For this reason, it is not surprising that the efficacy of local taxation is not what it should be, because fiscal administration staff are not evaluated based primarily on the efficacy of local taxation.) Hence the other major improvement requested by subnational governments: greater involvement in the taxation chain, by recognising their authority to set and manage taxes and fees, and granting them greater authority in collecting taxes, levies and fees. Subnational and local governments in Francophone countries consistently request greater flexibility in the application of the single-till rule or call for its outright abolition.

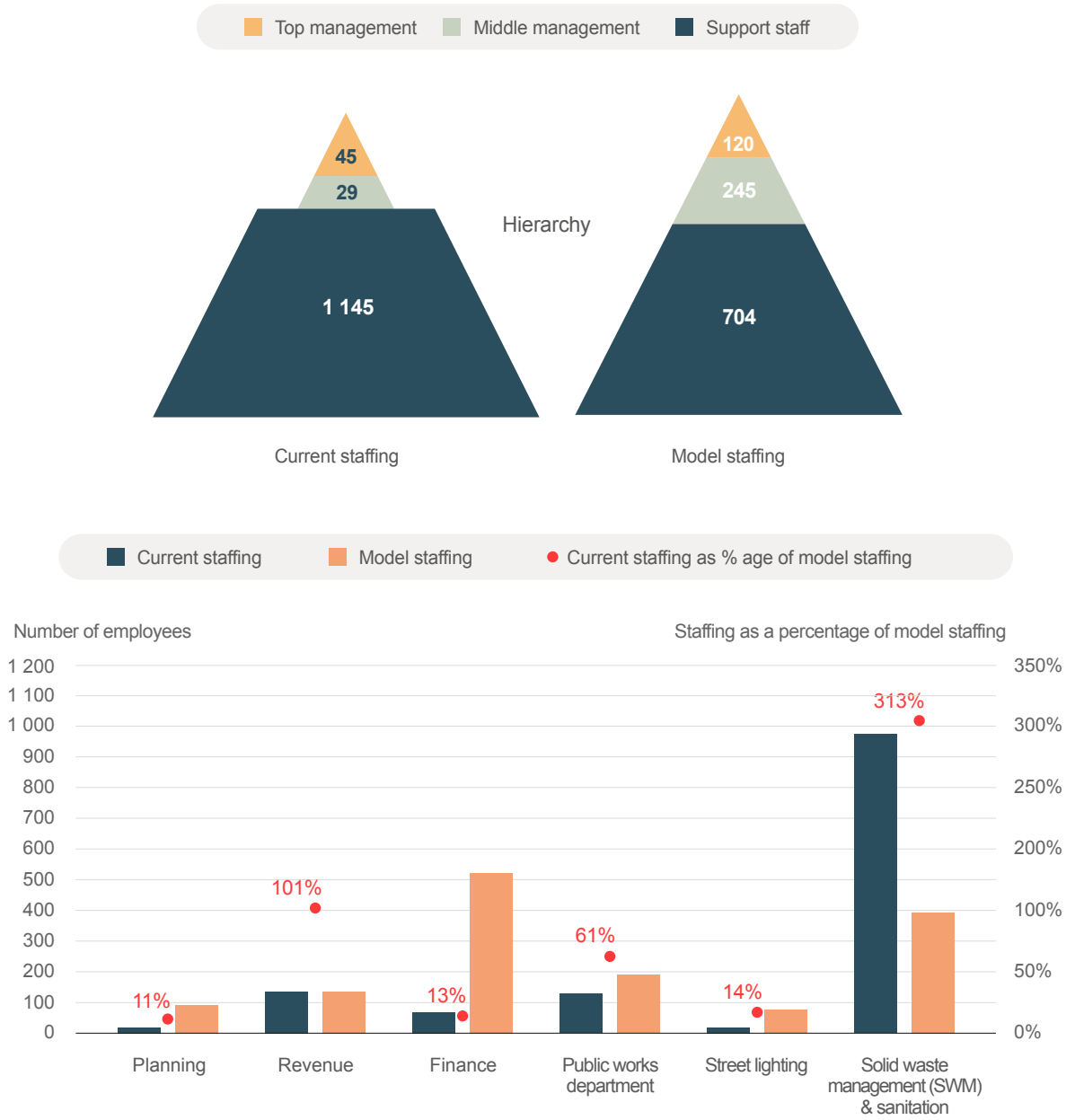
Experts estimate that an annual investment in African cities of about USD 80 billion is needed in the next 10 to 15 years to tap into the continent's economic potential, to ensure that the conditions are in place to accommodate a growing urban population, and to reduce the accumulated deficit in urban infrastructure and equipment significantly. Africa's subnational and local governments are expected to contribute some USD 25 billion per year from their budgets, but these estimates far exceed their annual resources. In addition, investing in urban infrastructure and equipment is crucial to generating wealth, creating jobs and improving the living conditions of the urban population. These investments are amortised over the long term, which means that access to loans, financial markets and public/private partnerships is crucial if they are to be able to make them. For that reason, UCLG Africa provides support for African subnational and local government leaders to lobby national governments for access to financial markets. With this in mind, UCLG Africa took the initiative of establishing the African Territorial Agency, a financial vehicle that enables the continent's cities and territories to access loans and financial markets, to help to meet the urgent need for infrastructure and equipment.

Improving the performance of the subnational government administration

Africa's subnational and local governments are under-managed and under-supported. Subnational and local administrations suffer from chronic deficits in the number and quality of management staff and from low pay levels. A study of the human resource capacity of 16 African cities and local governments by Cities Alliance showed that subnational local government administrations have management staff ratios of 1.4 per 1,000 inhabitants. This fulfils only 30% of the estimated need, and is significantly below management staff ratios in the local governments of developed countries, at 36 staff members per 1,000 inhabitants (Cities Alliance, 2017[3]). The study also noted that senior management of local government administrations generally earn 20% to 30% less than their counterparts working in national governments or the private sector.

Figure 6.3. An overview of the human resources capacity analysis for the city of Dire Dawa, Ethiopia





Source (Cities Alliance, 2017[3]), Human Resources Capacity Benchmarking, A Preliminary Toolkit for Planning and Management in Africa, https://www.citiesalliance.org/sites/default/files/Final%20Report%20on%20Municipal%20Staffing%20Toolkit_0.pdf.

Local government hiring is still often based on political and personal relationships rather than on merit or professional criteria. The politicisation of hiring practices, low managerial capacity, insufficient capacity for project preparation and structuring, as well as technical and financial modelling, are some of the factors contributing to the low level of performance of local government administration.

There is an urgent need to make human resource capacity a priority concern of subnational governments. Decentralisation will not produce the anticipated outcomes until the human resource issues facing local governments are taken seriously. The African Local Government Academy (ALGA) was set up by UCLG Africa to address the daunting problem of capacity development and professionalism of human resources in African cities and territories. In that context, it has established the Observatory of Local Governments' Human Resources to define benchmarks for managerial performance in the administrations of Africa's cities

and territories. Every three years, the Observatory publishes a report on the state of human resources in Africa's cities and territories, in an attempt to cultivate a culture of evaluating and comparing the performance of Africa's subnational governments.

African subnational and local governments need to engage in strategic planning

The speed of urban growth urgently requires an expansion of data and information to anticipate the rapidly changing needs of the citizens and to plan the response to meeting those needs. For Africa's cities and local governments, it is crucial to monitor the dynamics of urbanisation, and most subnational and local governments do not have statistics or planning departments with the capacity to keep track of these developments. The statistical tools they do have were developed for the needs of the national administration and are not sufficiently granular to detect the changes taking place at the local level. Approaches like those developed by the Africapolis team are no doubt a step in the right direction. This approach and the associated data systems must be made more widely available and adapted to local government needs. If it is true that what cannot be properly measured cannot be properly managed, then data and monitoring tools are the basis for strategic planning.

Current estimates indicate an average urban population growth rate in Africa of around 4% to 7% per year until 2050, which would double the urban population in the next 20 years. Such rapid, sustained growth is unparalleled in recent human history, and calls for a strategic approach to the five main functions expected of local government, namely: 1) ensuring food security for the community; 2) planning and building shelter for the community; 3) providing the community with basic services; 4) maintaining community infrastructure, equipment and basic services; 5) administering and governing the community.

The COVID-19 crisis has called attention to the shortcomings of development policies that have placed too much weight on subnational and local governments inserting themselves into the global economy. The health crisis has shed light on the limits of the current model, which is based on unlimited borrowing and on a disregard for the natural environment. African cities and local governments are poised to turn away from that model to take a new, more sustainable path to development, with greater respect for natural ecosystems. For optimum resilience and to be socially more inclusive and just, it should be based on the logic of the circular economy, with a smaller ecological footprint. Africa's subnational governments, the small- and medium-size cities in particular, are far less anchored in the fossil-fuel economy and are thus well placed to begin to shift to a development model with better respect for the cohabitation of human beings and other species. This will require relocating the means of production close to consumption sites and promoting production methods that consume fewer natural resources and reduce consumption in general.

Subnational and local governments of Africa are well placed to take responsibility to divert humanity's models of production and consumption onto a more sustainable trajectory, just as Africa is poised to become home to the world's largest population.

Taibat Lawanson
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What to do about 'Waithood' in African Cities?

What do you do when you are young and poor? How do you trigger a shift in status from extreme poverty? How do you catch hold of the promised "better tomorrow"? In Africa, where about 450 million people are aged between 15 and 34 years old (Rocca and Schultes, 2020[4]) what happens is that they move to the city. African youth aspire to move to urban areas where they perceive there will be greater opportunities (Lawanson, 2018[5]).

While the average able-bodied youth sees migration to the city as a rite of passage into adulthood, the chances are that they lack the education and/or skills required to stand a real chance (Min-Harris, 2009[6]). Over 100 million school-age children in Africa are not in school, a figure that has risen considerably as a result of COVID-19 (UNICEF, 2020[7]). In South Africa alone, as of July 2021, over 400 000 children had dropped out of school in the previous 16 months (UNICEF, 2021[8]).

Without the requisite skills, opportunities are limited to the margins of urban life, leaving youth access only to precarious employment and housing in informal settlements. Even among the educated, millions of university undergraduates are unable to access jobs in the formal sector. In Nigeria, for example, graduates may remain unemployed for up to ten years and are forced to resort to menial jobs for survival (Kazeem, 2020[9]).

'Waithood'

Whatever their background, African youth for the most part cannot partake fully and independently in the privileges and responsibilities of adult life. Given the socio-economic inequalities prevalent in urban areas, and the inherent hostility to informality in many cities, their very presence is considered unlawful, and they must constantly battle institutional antagonism and marginalisation in order to survive.

Alcinda Honwana (2013[10]) has described this situation as "Waithood", a prolonged period of suspension in which young people's access to social adulthood is delayed or denied. This means that they are compelled to improvise livelihoods and conduct their personal relations outside dominant economic and familial frameworks. During the period of "Waithood", two things can occur – innovation or disruption. Over the last 20 years in Africa, both have occurred simultaneously, with a spate of youth-led innovations as well as youth-led protest movements, many of which have turned violent.

Another form of "Waithood" is caused by conflict. African cities are disproportionately affected by conflict-induced migrations, both forced and voluntary. Waves of young people flee conflict to resettle in large cities (Institute of Migration, 2020[11]). While many countries have designated camps for internally displaced persons (IDP), the brutal conditions within these camps often force youth elsewhere in search of an independent livelihood. Generally speaking, they tend to move to cities where they expect to find better opportunities and safer environments. Lagos, Johannesburg, Monrovia and Nairobi have seen the arrival of hundreds of thousands of young people seeking safety and a way to support themselves. However, because their skills are often incompatible with life in the city, they are automatically predisposed to life on the margins and the multiple vulnerabilities that entails.

Waithood as an urban threat

African countries present a high risk of civil conflict, based on three key stress factors: the high proportion of youth; rapid urban growth; and exceptionally low levels of access to resources (Cincotta, Engelman and D., 2003[12]). Almost 16 million young Africans are currently facing unemployment, with a generally higher incidence in urban areas (Mo Ibrahim Foundation, 2019[13]). Women are more negatively impacted because it is easier for men to get jobs than it is for women, even if they have equivalent skills and experience (Igbohor, 2017[14]).

High youth unemployment is an impending threat to national stability, since the failure to secure a decent livelihood triggers restiveness, with dire socio-economic and political consequences. This is highlighted in the motive-oriented literature on civil violence and the Frustration-Aggression and Relative Deprivation theories, which suggest that individuals turn aggressive when there are latent or real impediments to their route to success in life, especially when their material basic needs are not met (Moller, 1968[15]). Such discontent has been demonstrated in recent years in Sahr, Khartoum, Dakar, Tunis, Cairo, Kampala, Lagos and Ouagadougou, to mention a few, in protest of issues ranging from poor governance, high youth unemployment, police brutality and the high cost of living.

Interestingly, education is a major factor in how these protests play out. For example, the "#FeesMustFall" protests in South Africa in 2015, and the "End SARS" protests in Nigeria in 2020, were led by educated youth and sustained through social media activism and debate (Agbor, Taiwo and Smith, 2012[16]). Although they effectively shut down economic life in the affected cities, the protests were for the most part nonviolent. The same cannot be said of the brigandage and destruction practiced by the Niger Delta militants, Al-Shabab, Boko Haram and other extremist groups and criminal gangs (Honwana, 2015[17]). These radical groups often recruit school children who are seeking a meal or even protection (UNICEF, 2020[18]).

Structural violence is also a threat when cities systematically keep people in poverty and material vulnerability (Bornstein, 2005[19]). Migrant children and children in slums and informal settlements are especially exposed. In many cities, they are forgotten and cut off from social services and education, leaving them prey to multiple threats that pose a risk both to their well-being and to that of the city. Youth IDPs also contribute to expanding existing city slums, increasing the number of homeless people living on the streets. They are also responsible for the emergence of new slums, when their temporary shacks at the urban peripheries become unwholesome fixtures (Roberts and Lawanson, 2021[20]). Since their skills are incompatible with urban life, and in the absence of social safety mechanisms, their prospects are limited to life as petty traders, labourers or informal transport sector workers. Young men and boys are targets for recruitment into criminal gangs, while young women and girls are lured into juvenile prostitution, child marriage, teenage pregnancies and human trafficking.

This vicious cycle may continue for generations.

Leveraging technology, surviving Waithood

Youth entrepreneurs make up an important segment of the micro, small and medium enterprise sectors. Young people are more likely to employ their peers (ILO, 2020[21]), and relations of reciprocity, solidarity and caring for the most vulnerable orientate their efforts to support themselves and others, as for example during the COVID-19 crisis (Diepeveen, Tant and Bailey-Athias, 2021[22]). These communities of care are seldom recognised in official economic projections.

Educated youth have explored a shift towards online income-generating opportunities. Even though fewer women are employed in the digital tech sector (Toesland, 2018[23]), more are joining its ranks as an alternative to a career in the corporate sector, where company policies on marriage and child-bearing often penalise women (Matotoka, 2021[24]).

Jobs in the tech sector range from creating apps, trading digital currencies, operating in social media marketplaces, to freelancing and gig work. By doing this, many young people are able to plug into the global economy and make enough to get by. However, this involves the expense of data and devices, and can be frustrating when arbitrary government policies are enacted.

The restrictions on cryptocurrency transactions and the outright ban of Twitter in Nigeria have crippled foreign direct investment in the fin-tech industry and negatively impacted millions of young Nigerians who earn a living from the sector. Many have found a way, however, to lawfully bypass these restrictions and continue business, effectively denying Nigeria the taxes and transaction fees that would otherwise come into the system (Baydakova, 2021[25]).

Similarly, the Lagos transport sector has been severely impacted by the government policy banning the activities of commercial motorcycles. The Lagos state government-financed Bus Rapid Transit (BRT) is only able to cater for 200 000 passengers daily (BRT Data, 2021[26]), less than 10% of all travel around the city. Commuters thus rely on the informal sector – minibuses (*Danfo*), tricycles (*keke*) and motorcycle taxis (*okada*) – as the main forms of travel. Some youth-led companies (e.g. Max and Gokada) have pioneered formalising the *okada* by bringing structure and innovation to the sector: introducing an app for ride hailing, standardising fares, profiling and training riders and ensuring bikes can be tracked and riders' behaviour monitored. This has increased safety in the sector, as well as livelihood outcomes for many riders. However, in February 2020, the state government banned commercial motorcycles in most parts of the state, effectively halting tax-paying businesses that had employed thousands of people and invested over USD 200 million in the Lagos economy (Oluka, 2020[27]). The ban increased the influx of *okada* into Lagos, as an easy source of employment for uneducated, undocumented migrants. This has led to a practical breakdown in the regulation of the sector and violent clashes between untrained *okada* riders and state security agencies attempting to enforce the ban (Baer Arnorld, 2013[28]).

The governance gap

In many African cities, leaders' aspirations for economic development are often disconnected from the lived realities of young residents. The nexus between youth migrations and urbanisation in Africa is not well

understood, and policy responses are often inappropriate or ineffective (Amare et al., 2021[29]). Many African countries have signed The New Urban Agenda, which commits them to supporting migrants, refugees and displaced people in urban settings, and helping them to gain access to an adequate standard of living and opportunities for productive and decent work. The reality is that many migrants are undocumented and are unable to access this support, where it exists. The lack of relevant data further complicates the process of urban integration of migrants or even of designing targeted interventions.

Urban development policies that do not recognise the formal-informal continuum destroy the livelihoods of the urban poor. Laws and regulations that criminalise informal economic activities are short-sighted, whether in the case of the ban on commercial motorcycle taxis or even policies intended to increase environmental responsibility.

The African Union's ambitious goal is that "African cities will be recycling at least 50% of the waste they generate by 2023" (UNEP, 2018[30]). Low-income urban communities are the most active recyclers, since they are able to support environmental policies while exchanging plastics for socio-economic value, including jobs, education for children and even dignity (Racapé, 2019[31]; Global Opportunity Explorer, 2018[32]). However, waste picking is an unlawful activity in many cities, including Lagos and Johannesburg (Harrisberg, 2019[33]), where state attempts to restructure the sector, introduce privatisation and increase foreign investment fail to recognise or include these important components of the waste management value chain.

Poverty alleviation and youth development policies in many African cities also tend to be tokenist. Many programmes introduced to facilitate economic development are not inclusive and do not provide opportunities for everyone. Social intervention programmes that focus on offering tangible welfare packages like free food, cash transfers or short-term jobs with insecure tenure do little to provide access to secure, sustainable livelihoods. The focus on vocational training often fails to offer support for establishing small businesses, or even mechanisms for accessing capital and the business management skills necessary to scale up these small businesses. Youth-led enterprises thus remain perpetually on the fringes of the economy.

Where public dissent emerges in opposition to government decisions, city and national authorities are quick to resort to violence rather than embrace dialogue. The direct consequence is that the educated migrate abroad, resulting in a brain drain, while others pursue more dangerous, irregular migration options. As many as 45% of adult Nigerians (Connor and Gonzalez-Barrera, 2019[34]) wish to leave the country, a number that has increased in the aftermath of the 2020 "End SARS" protests (Ishaku, 2021[35]). It is estimated that there are more African trained scientists and skilled professionals working abroad than on the continent (Woldegiorgis and Scherer, 2019[36]). As of 2015, 13 584 African-educated physicians were working in the United States and in 2017, about 9 946 in the United Kingdom (Irune, 2018[37]).

Towards a better urban future for African youth

A better tomorrow is possible only if the future of African urban youth is made a deliberately priority. Economic development in African cities and countries can be enhanced by initiatives designed to engage all categories of youth. For this, accurate, reliable and disaggregated data is required. It will also require clarity and consistency of economic and development decisions, as well as study of multisectoral linkages to mitigate unintended negative consequences.

The lack of emphasis on co-productive processes in policy development and implementation is perhaps why many policies fail in this part of the world. The concept of the urban commons and the potential of collaborative design and development of cities should be recognised and amplified. Inclusiveness will be a natural by-product of this process, as will safe and accessible civic spaces for engagement and non-violent dissent.

Urban planning and development solutions will be crucial for arresting socio-economic disparities. These solutions must prioritise the needs of children and youth. For example, education and training for children in slums and IDP camps should be set up, along with safety nets for urban integration, bearing in mind the gendered dynamics of urban vulnerability. Furthermore, programmes to improve camp conditions and promote urban renewal should focus on *in situ* upgrades and improvements in health and well-being.

Pro-poor development policies should specifically target youth employment and empowerment, bearing in mind the potential of communities of care and the liberating powers of technology. With the right knowledge, skills, mentorship, financial resources and enabling policies, youth-led enterprises can grow economies and create job opportunities (AfDB, 2021[38]). Deliberate support for informal economic activities is

crucial, including the creation of opportunities to scale up and formalise these activities.

Finally, the future of Africa belongs to the young. Young people will keep migrating to cities in Africa and beyond. Whether "Waithood" is an opportunity or a threat depends on how it is managed. It behooves city governments to ensure that the urban experience for this demographic majority is safe, inclusive and economically rewarding.

H.E. Albert M. Muchanga
African Union Commissioner for Economic Development, Trade and Mining

The African Union at the centre of Africa's urban transformation for shared prosperity

The adoption of the Agenda 2063 in January 2015 in Addis Ababa by the 24th African Union (AU) Assembly of Heads of State and Government is a clear testament to African leaders' commitment to building a united, peaceful, sustainable, inclusive and prosperous society in the decades ahead. Agenda 2063, Africa's blueprint for socio-economic transformation, places urban planning at the centre of the continental drive towards a cohesive society, where every citizen plays a role and benefits from the wealth generated by this transformation. In this vision, urban planning is a catalyst for structural changes that will deliver stronger growth and generate quality jobs for all Africans, and especially for women and youth.

Between 2000 and 2016, despite the encroaching global environmental crisis, Africa enjoyed a period of unprecedented economic performance, with an average growth rate of 4.6%. Growth, however, has been limited to economic enclaves, without accelerating the hoped-for economic diversification that could address the structural challenges of poverty and inequality. Africa has fallen short of the 7% growth rate anticipated in Agenda 2063 that could catalyse prosperity on the continent, based on its immense natural resources.

Diversification of economic activity and a shift from subsistence agriculture towards productive sectors such as transformed agricultural, manufacturing and high-quality services are expected to drive this transformation. The need for urban strategic planning is also made more urgent by rapid and dynamic population growth that calls for appropriate policies. African Development Bank projections show that the proportion of urban residents is projected to shift from 40% of the total population in the 2000s to 50% and 65% in 2030 and 2060, respectively.

Agenda 2063 defines a clear path for positive outcomes in areas such as poverty, peace and security, prosperity, the environment and regional integration, all of which require strategic policies, programmes and projects for sustainable urban and human settlements.

The role of the African Union Commission in driving Africa's urban development agenda

The Commission's support for Member States aims to design policies and institutions that encourage urban growth and build social cohesion. Key policy focus areas include:

Designing and investing in sustainable and resilient cities.

Investing in sustainable cities offers an opportunity to address structural challenges that stand in the way of Africa's development. The Commission's work with Member States and regional economic communities consists of supporting the design and implementation of policies that increase urban growth and reverse the current trend of increased vulnerability and inequality. Policy support for sustainable urban planning focuses on land tenure and property rights, with the goal of increasing efficient urban growth and the capacity of institutions that govern property rights. This can help to accelerate Africa's productive transformation agenda. Managing rural-urban growth will be a catalyst for achieving Aspiration 1 of Agenda 2063 towards a prosperous Africa based on inclusive growth and sustainable development.

Africa is endowed with 60% of the world's arable lands. Allocating appropriate amounts of land to agriculture will be decisive in spurring Africa's agricultural transformation, with a view to feeding Africa's population and to becoming the breadbasket of the world in the coming decades. This can transform Africa's economies, through beneficiation of natural resources, manufacturing, industrialisation and value addition, as well as raising productivity and competitiveness. More importantly, economic diversification through accelerated industrial development will be crucial in creating the massive number of quality jobs needed for Africa's youthful population and to steeply reduce widespread poverty and inequality. Sustainable urban management will also be instrumental in strengthening existing regional value chains and designing new ones. Developing competitive, sustainable and inclusive agro-industries and agribusinesses in Africa can be a way to increase economic growth and food security.

Accelerating regional integration by better management of internal migration.

The free movement of persons and the right of establishment is one of the fundamental pillars of Africa's integration agenda for realising the African Economic Community. For the African Union Commission, ensuring the free movement of people and rights of

establishment will facilitate the supply of skilled labour from one country to another. The urbanisation agenda will facilitate the free movement of labour, and the obtaining of work permits for African citizens irrespective of their skills, religion, ethnicity and nationality. The Commission's work with Member States aims to revise national employment codes in line with Regional Economic Community (REC) protocols and to ensure that the rights of migrant workers in host countries are protected. Concerted action will harmonise national laws that conflict with regional treaties, and will address migrants' rights of residence and settlement. This requires modifying domestic laws, statutory instruments and administrative practices, and aligning national political interests with long-term regional goals and ambitions, which some Member States may not yet see as a priority.

Urbanisation will play a key role in accelerating regional integration. Increases in local and regional production and supply chains, as well as the transfer of goods, people and information, can better link local economies to their regional counterparts. Strategically planned urbanisation offers opportunities for higher levels of agglomeration and increased economic specialisation among countries. Meanwhile, increasing urban productivity and an increase in purchasing power will expand the opportunities for intra-African trade. Rapid urban population growth, higher urban density and diversification of economic activities will intensify spatial interactions, creating favourable conditions for regional integration.

Ensuring peace and security through sustainable urban growth.

Peace and security are prerequisites of the Agenda 2063. In recent years, land has become a delicate political issue. Such issues as property rights and fair distribution have become obstacles to peace and prosperity. In the years ahead, land management will accelerate conflicts if early preventive rural-urbanisation policy actions are not taken. Some ongoing disputes involve water, land and environmental degradation and call for strategic policy actions. Climate change will exacerbate these issues, resulting in rural-urban migrations and disputes over the allocation of vital spaces for housing, agriculture and pastoral purposes. The Commission's efforts to promote sustainable urban growth provide a basis for good governance and accountability in African countries. This is essential for building a cohesive society that works for the well-being of all its members, fights exclusion and marginalisation, creates a sense of belonging, promotes trust, and offers its members the opportunity of upward mobility. To ensure peace and security in Africa as a precondition for inclusive and sustainable growth, the Commission will support Member States to establish mechanisms that prevent or immediately resolve intercommunity conflicts.

Encouraging environmental sustainability and enhancing resilience and risk reduction.

Environmental sustainability, enhanced resilience and risk reduction are key components of sustainable development, as encapsulated in Aspiration 1 of Agenda 2063. Africa's vision is to attain a situation in which natural resources are sustainably managed, societies consume and produce goods and services in a sustainable manner and biodiversity is fully preserved. Practices and new technologies to ensure efficient use of water resources and climate-resilient, low-carbon production systems will be put in place, to minimise the continent's vulnerability to climate risks and related natural disasters. As part of continental efforts towards environmental sustainability, African countries have signed the Paris Agreement on Climate Change, and the African Union has adopted a Programme of Action for the Implementation of the Sendai Framework for Disaster Risk Reduction. The urban dimension of both commitments is featured prominently in the New Urban Agenda, which notes that cities and human settlements face unprecedented threats. Unsustainable consumption and production patterns, loss of biodiversity, pressure on ecosystems, pollution, natural and human-made disasters, and climate change and its related risks, undermine efforts to end poverty in all its dimensions. Urban demographic trends can play a central role in mitigation and adaptation efforts related to climate change and in the use of resources and ecosystems. The way that urban areas are planned, financed, developed, built, governed and managed will have a direct impact on sustainability and resilience, well beyond urban boundaries.

Building urban governance structures.

Agenda 2063's approach to urbanisation calls for a human-centred development perspective that envisages the creation of a socially cohesive society. In this society, civic engagement will help to create a sense of belonging and ownership among all inhabitants, and the achievement of gender equality will allow women and girls to participate fully in all fields and in leadership roles, at all levels of decision making. People have a central role to play in implementing the

Agenda, and institutions and processes need to be set up to make this possible. The New Urban Agenda also recognises the role of urban and human settlements as collaborative platforms in which the public sector, private sector and civil society are engaged in working towards a common vision. Sound institutions and mechanisms will institute appropriate checks and balances that fully involve urban stakeholders. The New Urban Agenda makes a commitment to strengthen urban governance and broaden inclusive platforms, in line with national policies. Support is promised for subnational and local governments, as appropriate, in fulfilling their key role in strengthening the interface among stakeholders. Opportunities for dialogue will include age- and gender-responsive approaches enlisting all segments of society. Men and women, children and youth, older persons and persons with disabilities, indigenous peoples and local communities, refugees and internally displaced persons and migrants, regardless of their migration status, will be called on to participate, without discrimination based on race, religion, ethnicity or socioeconomic status.

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Political implications of African urbanisation

It is well established that the African region demonstrates the highest rate of urbanisation. It is equally well-known that 90% of all urban growth will be concentrated in Africa and Asia between 2021-2050. Urbanisation over the next two decades will coincide with numerous challenging trends. They include rapid digital technological change that will shape the relative competitiveness of national and regional economies; more intense and more frequent climate-related disasters and pressures; the changing nature of work and occupational categories; and further bifurcation of polities as people gravitate towards various forms of extremism, combined with populism. All in all, it is a recipe for deep uncertainty and conflict.

The COVID-19 pandemic has given a foretaste of what these convulsions might mean in terms of everyday life, economic dislocation, political unrest and strains on precarious public infrastructure and institutions.[1] These exogenous stresses are likely to increase in frequency and impact, raising questions about the political-institutional reforms that should be considered to anticipate and respond pro-actively. In most African countries, given the long-term policy delay in advancing democratic decentralisation and the need to give National Urban Policies some teeth, several urgent institutional innovations could help equip governments prepare for what lies ahead.

Perpetually delayed reforms

Richard Stren, one of the longstanding observers of urban policy and governance, made the following observation 50 years ago:

> *One of the most widely held criticisms of urban policies in Africa is that they are inconsistent, haphazard, and not coherently articulated. … Physical planners rarely work with economists, there are no ministries of urban affairs, and even well-defined problems such as housing and urban transportation run the gamut of intra-governmental negotiations before anything serious can be attempted. The division of function and jurisdiction between local and central government also leaves a great deal of room for manoeuvre, conflict, and overlap in urban policy. (Stren, 1972[39])*

This assessment preceded the concerted policy push in the 1990s by various international development agencies for greater political and functional devolution of power from central governments to the local level. In the early 1990s, the push for decentralisation coincided with the proliferation of two discourses: environmental sustainability, which was to be reflected in Local Agenda 21 plans, and participatory development, which had to be embedded in institutional mechanisms at the municipal level, to give voice to civil society and citizens. Increasingly, in the late 1990s and 2000s, donor agencies in the multilateral system insisted on evidence of such reforms to access loan finance or debt relief. Amidst a larger wave of political reform to introduce multiparty electoral systems across Africa, various experiments in decentralisation were pursued, with uneven results (Pieterse and Smit, 2014[40]).

The literature on decentralisation concurs that decentralisation was often more hollow than substantial. Local governments were created in law, but these tiers of government were seldom awarded the requisite powers, functions and fiscal capacities to take control of their territories. Instead, they would be administrative extensions of national ministries, and most urban infrastructure and services would be planned, implemented and managed by national utility companies that bypassed local political processes. These institutional mismatches are allowed to persist, in part, because many national governments realised that their political foes would find their greatest electoral support in cities. This phenomenon creates a political incentive to keep local governments, especially in cities, weak and under-resourced.

National urban policies: A political game changer?

Against this historical backdrop, it is important to pay attention to the significant uptake of National Urban Policies (NUPs) in many African countries. According to the most recent data available, 23 African countries have NUPs, and a number of others are in the process of developing them (UN-Habitat, 2021[41]).

Since NUPs emerged as an institutional innovation, after the Paris Climate Agreement of 2015 and the Sustainable Development Goals (SDGs) for 2030, they have been seen as mechanisms to facilitate inter-governmental alignment around critical development, climate and economic development goals. In this sense, NUPs can become the policy arena that addresses how infrastructure investment for long-term and low-carbon growth is calibrated to respond to the territorial conditions of a given country. Put differently, a large-scale renewable energy strategy must

respond to where the greatest economic needs are—key regional hubs in a national hierarchy of places — and sequence investments to address capacity constraints in places with the greatest economic impact, whilst simultaneously promoting mini-grid, renewable energy technologies at a relatively low cost that can be operated by communities themselves.

The National Urban Policy can guide how best to implement such a spatially differentiated infrastructure investment agenda, whilst defining what it means for intergovernmental relations and fiscal policy. Furthermore, a NUP will present a view on how to optimise the alignment of critical infrastructure investments, and to ensure synergy and cost-effective alignment, within the larger perspective of addressing structural transformation of the economy through the promotion of green industrialisation (Lopes, 2019[42]). To be clear, this is the potential role that NUPs could fulfil in Africa. Whether they do so or not, remains unclear. It is too soon to draw conclusions.

New scales of co-ordination

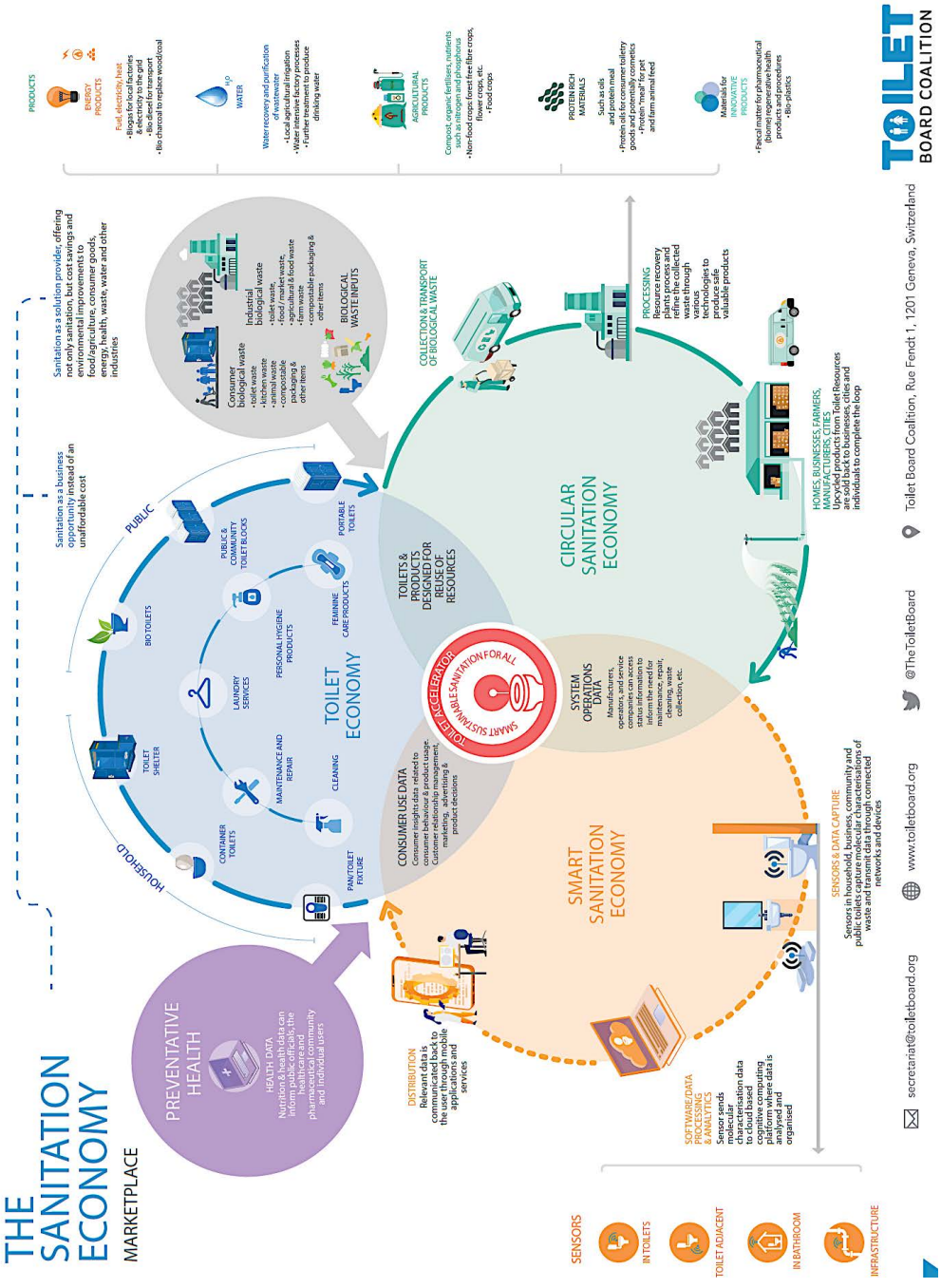
An important dimension of the emerging new era is a recalibration of the scales at which economies and various forms of collective action are organised. The vulnerability of globalised value chains has been exposed during the COVID-19 pandemic. This realisation chimes with the environmental critique of long-distance supply chains. In response, the long-standing argument for a greater focus on regional scales of logistical organisation has come back onto the policy table, with important environmental and infrastructural dimensions. It is easier to optimise low-carbon mobility systems if the territorial scale of securing raw materials, conducting beneficiation, packaging and distribution are more contained in terms of physical extent. It is also easier to manage and co-ordinate scarce natural resources such as water when its planning and operational management is based on the regional water basins. New forms of energy provision, through renewable mini-grid systems, also lend themselves to smaller scales of organisation and distribution, rather than relying on national grids.

Regional economic competitiveness will increasingly rely on a deep understanding of the unique endogenous offerings of a given territory. It will also require building out the supportive infrastructure and labour market intermediation to enhance regional assets. Given the centrality of city-region economic hubs, especially in Asia and Europe, the new forms of city-region diplomacy and economic engagement are becoming increasingly important. African city-regions will have to come to terms with these imperatives and create the political and institutional scaffolding for formal forms of political organisation and networking to support moves in this direction. It is precisely these new imperatives for sub-national regional co-ordination and networking that should be addressed in contextual NUPs.

Another scale – the hyperlocal – will become increasingly important as urban service delivery and the underlying infrastructure shift towards technological approaches that enable low/zero carbon performance, material efficiency and labour intensity. This is particularly important in most African cities. Infrastructure systems and associated service delivery can be reimagined at the intersection of circular economy principles, digital technology, place-making imperatives and job-creation, through the strengthening of social enterprises within the affected communities. These opportunities are especially relevant in the poorest neighbourhoods of African cities, where various kinds of makeshift systems have been responding to the inability of the local state to provide affordable and consistent services. The challenge is to create new frameworks of engagement and negotiation, to rethink and redesign basic service delivery systems (e.g. electricity, water, sanitation, waste removal and housing provision), as well as services that structure common spaces through public space, green infrastructure and breathable air.

It is instructive to consider one illustration of how sanitation services can be reimagined not only to fulfil basic needs but also to comply with circular economy principles and enhance public health outcomes. It is based on research conducted by the Water Research Commission (of South Africa) and the Toilet Board Coalition. Figure 6.4 summarises the potential for reorganising the technological underpinning of sanitation in poor households, embedding digital sensors into the systems to generate vital preventative health data. The outputs from household and public toilets can feed into biological waste streams that can be processed to support agricultural economies. Not reflected in this is the need to strengthen social enterprises within such communities to maintain and operate these systems. This will reduce the cost for participating households and create opportunities for forms of work in a context where formal employment opportunities are scarce. Similar design logics can also be applied to other infrastructure sectors.

Figure 6.4. Recasting sanitation



Source (Akinsete et al., 2019, p. 8[43]), The Sanitation Economy Opportunity for South Africa, https://www.susana.org/_resources/documents/default/3-3692-7-1568622624.pdf.

Bringing new politics to life through innovation

These new scales of development co-ordination must navigate an urban world that must contend with profound environmental risks and deep socio-economic inequalities. It is not a given that incumbent political actors will see an alignment between their own interests and experimenting with new forms of planning and co-ordination. It will be important for organised local government, in concert with civil society organisations, academia and the private sector, to establish forums where these new political and development opportunities can be discussed. National governments will be working to align SDGs commitments with their

National Determined Contributions, in terms of carbon reduction targets and green industrialisation strategies that align with the imperatives of the African Continental Free Trade Area. This may offer an opportunity for inclusive growth, jobs, reducing inequality and enhancing environmental sustainability. The difference from earlier perspectives on these inter-dependencies is that it is now understood that such an approach has profound spatial implications, especially in a context of rapid urbanisation.

It is for this reason that the importance of innovation systems must be appreciated. Innovation systems can be deployed to figure out how to adapt new technological and regulatory systems to the unique political and material challenges of African cities. Put differently, as intimated above, we have a reasonable sharp policy understanding of what needs to change, but the perennial question remains: How best to upend the status quo?

The dominant ways of doing things are held in place by powerful vested interests, entrenched behavioural patterns and preferences and institutional norms and sanctions that are difficult to shift because they have a basis in law and political power.[2] Apart from figuring out how to expose and shift the status quo, generic "solutions" will need to be adapted and tailored to specific contexts marked by unique socio-cultural and ecological dynamics and histories. New approaches and technologies must be adapted to local dynamics to have any hope of achieving traction, impact and durability. This raises the question: Who will do the work of matching innovative urban development ideas with local dynamics? City-level Experimentation Labs (CELs) can play this role.

Ideally, a local university-based urban research centre or think tank should take the lead to establish research and discussion platforms on pressing urban challenges in the local context. Such a nodal point will have to take on a variety of functions that include:

- *Foundational research* (collecting and analysing various datasets) to establish a credible evidence base on the various urban systems that underpin the urban- or city-region. Where resources allow, such incremental work should manifest as observatories with appropriate geospatial capacities and public interfaces.
- *Action research* on topics identified by key local actors in the public sector, civil society and the private sector, to ground and advance a medium- to long-term strategic plan co-produced in a participatory fashion. This can dovetail with formal, statutorily required, territorial and environmental plans.
- *Translational research* that requires review and analysis of global (e.g. SDGs, New Urban Agenda), continental (Agenda 2063) and national development goals for application at the local scale. This task will help to reinforce the importance of local priorities and to refine the assumptions of implementation frameworks that stem from these larger policy imperatives.
- *Experimentation and prototyping* to uncover the practical mechanics of carrying out policy imperatives that stem from various generic frameworks in the areas of resilience, climate change adaptation, conflict resolution and so on. It is impossible to overstate the importance of testing new ideas, because most promising policy ideas run aground on regulatory and institutional mainstreaming.
- *Knowledge intermediation* through curated processes of co-production and exchange between diverse stakeholders in a city, or a specific area where action research or experimentation is being carried out. These processes are crucial to generate genuine innovation in relation to identifying solutions that can work effectively in the local context, appropriately adapted to reflect cultural sensibilities and unique conditions. (Parnell and Pieterse, 2015[44])

These functions imply that such urban research centres must incorporate diverse academic and professional skills to work within an open-systems frame that is fundamentally interdisciplinary. They also require a capacity for transdisciplinary practices, which involve the articulation and synthesis of academic, tacit, professional and intuitive knowledge. Transdisciplinary research is problem-driven interdisciplinarity conducted with, not for, societal actors.

Africa is undergoing a period of profound social, political, technological and demographic change that manifest most acutely in African cities and towns. The entrenched forms of political organisation and their logic of command and control are simply no longer appropriate, and new spatial dynamics are needed to define policies and strategies to contend with the challenges. A new generation of innovation capacity at the urban scale is needed, with the resources and trust to facilitate the necessary tough conversations on how best to transition to a more integrated, sustainable and just urban future.

Yvonne Aki-Sawyerr
Mayor of Freetown, Sierra Leone

Driving development? The challenge of making Freetown an engine of growth

Freetown's population is now estimated at approximately 1.5 million, an over tenfold increase since Sierra Leone's independence in 1961. During the civil war that engulfed the country in the 1990s, many fled towards the capital, where they began to build on pockets of land previously unused for housing – and the majority stayed. The city extended outwards to accommodate this influx, but it did not do so with any urban strategy or plan in place. Despite this lack of planning, two decades on, the city contributes more than one-quarter of the national gross domestic product (GDP), according to a 2019 World Bank report, reaffirming the importance of Freetown as a potential growth driver for the country.

Yet a lack of urban planning can lead to cities becoming bottlenecks for growth. This is a significant challenge facing the city. Despite Freetown's national economic importance, it is underserviced, overcrowded and vulnerable to natural hazards, challenges that are only going to grow in the coming decades, as Sierra Leone's population increases and climate change impacts are more keenly felt by residents. There is already a chronic shortage of affordable housing and land in the city, with recent estimates suggesting a housing deficit of 166 000 units, which could grow to 280 000 in the next two decades. A sizeable number of residents live in some of the more than 70 informal settlements of the city that are detached from basic services, often in at-risk areas that are prone to flooding.

Since I was elected as Mayor in March 2018, Freetown City Council has embarked on a concerted effort to make some inroads in these key areas. The Transform Freetown Agenda (2019-22), developed through an interactive consultation process, identified four priority clusters – resilience, human development, healthy city and urban mobility – through which our interventions are channelled.

Resilience captures three key areas – environmental management, revenue mobilisation, and urban planning and housing. Since 2019, we have worked closely with communities in informal settlements to identify and support efforts to improve their disaster preparedness capacity, particularly against the risks of annual flooding. We have also worked to improve the council's revenue generation, through efforts to establish a digitised, points-based property tax regime in the city. An initiative has been proposed to ensure that the tax burden is more equitably spread and that taxes are more efficiently collected; efforts that are projected to result in a fivefold increase in revenue, and which could support further improvements for urban residents. However, this initiative has been put on hold, first by a suspension of the property rate collection in 2020 by the central government, and more recently by internal institutional resistance.

Finally, whilst recognising that the challenges of urban planning and housing will require sustained intervention over the long term, we have undertaken efforts to upgrade informal settlements and to coordinate and improve planning standards and efforts. This will only be utilised if and when land use planning and building permit issuance is devolved from the Ministry of Lands to the local councils. The government's initiative to create a master's degree in urban planning at Njala University will also support these goals and can ensure that greater focus is given to this critical area.

Our focus on human development aims to create jobs, improve access to education, develop residents' skills and to specifically address the challenges facing those with disabilities across these areas. Many Freetonians rely on the informal economy for their daily income. Their livelihoods have been challenged by the ongoing COVID-19 pandemic, which saw curfew measures introduced and limits imposed on the number of passengers in public and private transport. Creating formal jobs in the tourism sector – a sector that both the central government and the Transform Freetown Agenda had identified as a potential growth area – has also been severely hit by the pandemic.

Health, water and sanitation are the three key components of the third priority cluster of a healthy city. Improved access to services like the provision of water and effective waste disposal are key to developing a more supportive and enabling environment for citizens to flourish economically. Linked to this is the urban mobility cluster, where we are looking to decongest the central business district through ambitious public transport infrastructure projects like the Freetown Cable Car Initiative. Based on a review of comparable studies, the Freetown Cable Car system can act as an inclusive connector for underinvested communities in challenging terrain. Plans are also under way to regenerate the Central Business District, funded by a city-to-city partnership with the city of

Zurich (Switzerland). This funding will provide technical and financial assistance to a programme to promote walking through improvements to footways, reintroducing street lighting and controlled parking zones.

But for all of these areas of focus, the city council cannot succeed alone. We must work closely with central government ministries, departments and agencies to deliver coherent and joined-up interventions. This remains the biggest obstacle in the transformation of Freetown from a potential driver of growth to an actual driver of growth. As in many other cities across Africa, such as Dakar and Kampala, the political party representative elected to oversee the function of the city is not a member of the ruling political party. In Sierra Leone, where political loyalties and divisions are pronounced, this continues to cause roadblocks.

Despite the devolution of powers laid out in the 2004 Local Government Act, such measures have not always been undertaken. The relevant central government ministries – for example the Ministry of Local Government and Rural Development and Ministry or Lands, Housing and Urban Development – are designated to provide overall policy direction. However, lack of dialogue, co-ordination and political commitment delay and hinder the effective implementation of proposed policies and decisions.

Increasingly, the Freetown City Council is driving a wide range of initiatives designed to boost the city's economic transformation. Planning is a fundamental part of any effort to develop a city, but in Freetown, it is impossible to do so effectively when politics influences initiatives. The consequences of this political stalemate are felt most forcefully by ordinary Freetonians, who are ultimately looking to the city for better services, reduced crowding and initiatives that can reduce climate vulnerabilities and improve economic opportunities. The potential remains for Freetown to become an engine of growth, but as with many initiatives in Sierra Leone, a failure to put plans into practice, especially urban planning and the issuance of building permits, continues to hold the city back.

Notes

1. For a sobering and nuanced reflection, see UNDP Regional Bureau for Africa (2021) *Analysing long-term socio-economic impacts of COVID-19 across diverse African contexts*, United Nations Development Programme, Johannesburg.
2. These dynamics are teased out elsewhere: Pieterse, E (2018[45]), "The Politics of Governing African Urban Spaces", *International Development Policy / Revue internationale de politique de développement*, No. 10, pp. 26-54, http://journals.openedition.org/poldev/2626.

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This report provides a new perspective on Africa's urban economies that is unique in its breadth and level of detail. Based on data from more than 4 million individuals and firms in 2 600 cities across 34 countries, it presents compelling evidence that urbanisation contributes to better economic outcomes and higher living standards. It shows that across most socio-economic dimensions, cities significantly outperform the countries in which they are located. In Africa, urbanisation accounts for approximately 30% of the growth in per capita gross domestic product (GDP) over the past 20 years. Importantly, the gains from urbanisation on economic performance and quality of life extend beyond city boundaries, also benefiting rural areas. The report also shows that transnational clusters of cities are emerging along coasts as well as inland, offering new opportunities for economic development. Based on these findings, the report sets forth policy priorities at national and local levels that are essential to realise the potential of urbanisation. Among these, it argues that the role of cities should be fully anchored in national development planning. Moreover, local governments need greater fiscal and administrative capacity to become key actors in economic development.

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