

# POLICY NOTE ON AFRICA

INVESTING IN  
GROWING  
AFRICAN CITIES

EMnet Africa Meeting:  
30 September 2016



INVESTMENT  
ENERGY RISK MANAGEMENT  
INFRASTRUCTURE INNOVATION  
POPULATION GROWTH MIDDLE CLASS  
GREEN GROWTH COMMODITIES  
SKILLS REGULATIONS TRADE  
PRODUCTIVITY  
INDUSTRIALISATION  
CREDIT

## Investing in growing African cities

This edition of the EMnet Africa Policy Note provides insights and policy recommendations from the private sector on investment challenges in African cities. The note examines the latest macroeconomic trends on the continent and provides an overview of recent urbanisation policies, highlighting how policy makers are supporting private-sector led investments in African cities. The analysis builds on discussions from the business meeting held on 30 September 2016 at the OECD headquarters in Paris and organised by the OECD Emerging Markets Network (EMnet) as well as on the analysis of the *African Economic Outlook 2016*, in addition to desk research and bilateral discussions with EMnet members.

Key messages include:

- By joining forces with local partners, firms have been successful in investing in African urban markets. A thorough understanding of local specificities and a multi-stage approach have been indicated as key success factors of foreign direct investments.
- To build more efficient and sustainable cities, reduce environmental risk factors and create more value-added jobs, investments in infrastructure such as roads, sewage, water systems and in information technologies, are needed.
- Public-private partnerships (PPPs) could facilitate the implementation of large infrastructure projects and further reduce the cost of such investments. However, if adequate institutional and human capacities are not in place, PPPs could instead drive the cost of such investments up.
- Financing African cities will come from various sources. The private sector is playing an increasingly important role in financing infrastructure development, although public investment accounts for two-thirds of the total in developing countries.
- Innovative business solutions, such as for digital technologies for mobile payment systems, can offer opportunities to address the growing issue of the urban informal economy.

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## *Table of contents*

<b>Africa's business and economic overview .....</b>	<b>6</b>
Regional growth paths differ substantially.....	6
Foreign direct investment (FDI) varies considerably by region .....	7
Large cities attract a major share of FDI .....	8
China's new normal: Short-term challenges for Africa's growth .....	9
<b>Growing African cities: challenges and opportunities for the private sector.....</b>	<b>10</b>
A growing population .....	10
Low quality of urban infrastructure .....	11
Intermediary cities are capturing much of the rural and urban demographic growth.....	12
<b>Public policies to support Africa's urbanisation growth .....</b>	<b>13</b>
Improving resources to finance African cities.....	13
Building public sector capacity .....	13
Supporting technology-oriented policies for enhanced urban development.....	14
<b>Private sector insights on urbanisation challenges in Africa .....</b>	<b>15</b>
Partnerships can be mutually beneficial for the delivery of urban projects.....	15
Financing African cities will come from various sources .....	16
Business linkages can help foreign multinationals penetrate new markets.....	18
Local skills are needed to develop sustainable African cities.....	18
Significant investment opportunities exist for technology solutions in support of African cities.....	19
Technology and digitalisation can help cities tackle urban challenges.....	20
Innovative business models can include Africa's informal economy .....	20
<b>Conclusion.....</b>	<b>21</b>
<b>Notes .....</b>	<b>22</b>
<b>References.....</b>	<b>22</b>

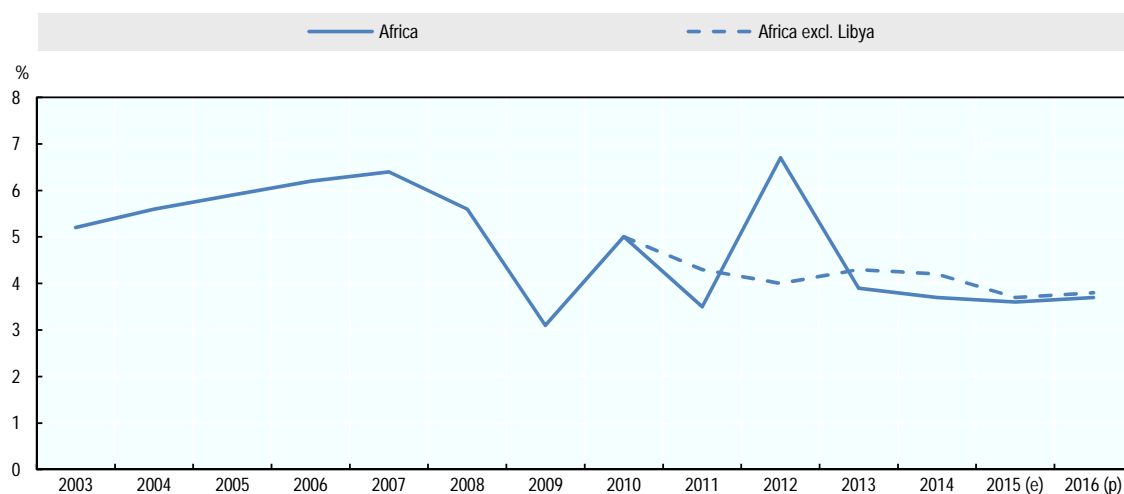
## **ABBREVIATIONS AND ACRONYMS**

<b>AfDB</b>	African Development Bank
<b>AICD</b>	Africa Infrastructure Country Diagnostic
<b>ICT</b>	Information and communications technology
<b>IoT</b>	Internet of Things
<b>FDI</b>	Foreign Direct Investment
<b>4G LTE</b>	4G Long Term Evolution
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PPP</b>	Private-public partnerships
<b>RCEP</b>	Regional Comprehensive Economic Partnership
<b>R&amp;D</b>	Research and Development
<b>UNDP</b>	United Nations Development Programme

## AFRICA'S BUSINESS AND ECONOMIC OVERVIEW

According to the *African Economic Outlook 2016* (AfDB/OECD/UNDP, 2016), Africa's overall economic growth will remain relatively stable in the near term despite a weak global economy. The average economic growth of African economies stood at 3.6% in 2015 and was projected to stagnate in 2016 (Figure 1.1) (AfDB/OECD/UNDP, 2016). Since the launch of the *Outlook* in May 2016, lower commodity prices, disruptive weather conditions and conflict-related spillovers has led to a downward revision of regional growth estimates (World Bank Group, 2017).

Figure 1.1. Africa's economic growth, 2003-16



Note: (e) estimates; (p) projections. Latest data available released on 23 May 2016.

Source: AfDB/OECD/UNDP (2016), *African Economic Outlook 2016*, <http://dx.doi.org/10.1787/aeo-2016-en>

Over the last 10-15 years, gross domestic product (GDP) registered between approximately 4% and 6.5% growth due to the “commodity super cycle”, i.e. high commodity prices combined with a growing population. In the new medium-term scenario, Africa may report a lower overall growth rate due to a slower recovery of commodity prices, uncertainty in European and US policies, and a weaker global financial outlook (World Bank Group, 2017). To drive growth, African countries that are rich in natural resources will need to diversify their economic base and deepen domestic markets.

### Regional growth paths differ substantially

While African growth has decelerated, performance has varied across sub-regions. It is particularly worth noting the difference in growth patterns between East and West Africa.<sup>1</sup> With the end of the commodity super cycle, investment has shifted from the resource-rich West towards the diversified economies of the East, where major technology hubs are appearing.

East Africa has therefore emerged as the driver of growth in the continent (Table 1.1). The region is not rich in natural resources but remains resilient with a diversified economic structure. In contrast, West African economies have been affected negatively by the 2014 Ebola outbreak and declining commodity prices. Central Africa also was impacted by declining oil and metal prices. During the same period, more mature economies in North and Southern Africa recorded the lowest growth rates. While North Africa has experienced a rebound thanks to an improvement in political and economic stability, the economic performance of Southern Africa has slowed down further due to acute power shortages, droughts and low commodity prices (AfDB/OECD/UNDP, 2016).

**Table 1.1. GDP performance in Africa, 2007-16**

	Real GDP growth %					
	2007-11	2012	2013	2014	2015 (e)	2016 (p)
Central Africa	5.9	6.3	3.3	6.1	3.7	3.9
East Africa	6.4	4.5	7.2	6.5	6.3	6.4
North Africa	3.6	9.6	1.7	1.4	3.5	3.3
Southern Africa	3.8	3.4	3.7	2.8	2.2	1.9
West Africa	6.3	5.2	5.7	6.0	3.3	4.3
<b>Africa</b>	<b>4.7</b>	<b>6.4</b>	<b>3.9</b>	<b>3.7</b>	<b>3.6</b>	<b>3.7</b>
<b>Africa (Excluding Libya)</b>	<b>5.0</b>	<b>3.9</b>	<b>4.3</b>	<b>4.2</b>	<b>3.7</b>	<b>3.8</b>
North Africa (including Sudan)	3.6	9.0	1.9	1.6	3.6	3.5
Sub-Saharan Africa	5.4	4.5	5.2	5.0	3.6	4.0
Sub-Saharan Africa excluding South Africa	6.2	5.1	5.9	5.9	4.2	4.7
Oil-exporting countries	4.8	7.9	3.5	3.7	3.5	3.9
Oil-importing countries	4.5	4.2	4.5	3.8	3.6	3.4

Note: (e) estimates; (p) projections. Latest data available released on 23 May 2016.

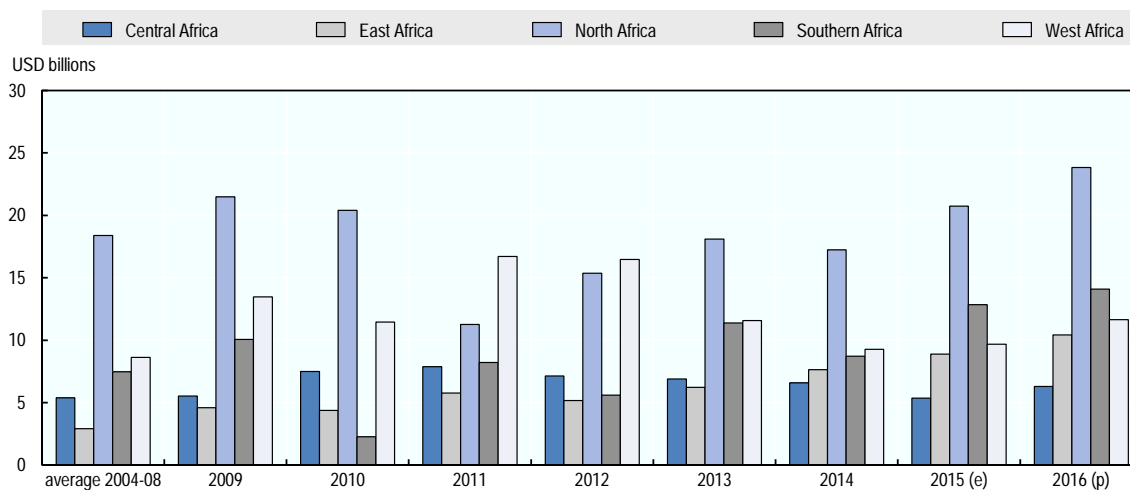
Source: AfDB/OECD/UNDP (2016), *African Economic Outlook 2016*, <http://dx.doi.org/10.1787/aeo-2016-en>.

### Foreign direct investment (FDI) varies considerably by region

FDI to Africa varies considerably by region (Figure 1.2). While FDI to North Africa has grown, thanks mainly to Egypt, investments to the rest of the continent, particularly to the economies based on natural resources in West and Central Africa, have been affected negatively by the drop in commodity prices. Reduced investments into Nigeria were the main cause of the 18% decline of FDI into West Africa in 2015, while FDI to the Southern Africa region increased by 2%.



Figure 1.2. Inward FDI by region, 2004-16



Note: (e): estimates; (p): projections. Latest data available released on 23 May 2016. Conflicting figures exist for 2015 FDI inflows to the continent; the International Monetary Fund (IMF) reports a 16% increase in FDI into the region (AfDB/OECD/UNDP, 2016; IMF, 2015), while UNCTAD reports a 7% decline in FDI into the region, bringing total African FDI inflows to USD 54 billion (UNCTAD, 2016).

Source: Author's calculations based on IMF data cited in AfDB/OECD/UNDP (2016), *African Economic Outlook 2016*, <http://dx.doi.org/10.1787/aeo-2016-en>.

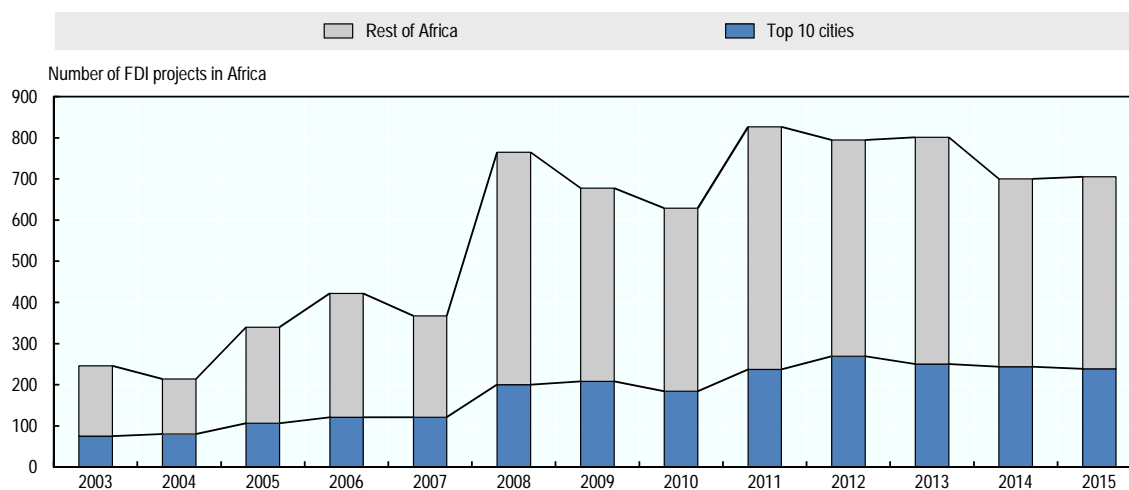
FDI fell in a number of regions. However, the continent holds great promise for future FDI inflows. With the slowdown of Chinese manufacturing, global firms in the textile industry are seeking alternative bases to access the European market. This can open up opportunities for countries such as Kenya to become new global hubs for manufacturing. Moreover, several non-resource-rich countries are now attracting FDI, which the *African Economic Outlook 2016* highlights as reflecting “a shift towards consumer goods.” Beyond Kenya, other notable countries not rich in resources attracting more FDI in 2015 are Tanzania and Uganda. Still, non-resource-rich countries represented only 37% of total inflows into the continent. Resource-rich economies such as Egypt, Morocco, Mozambique and South Africa receive the lion's share of FDI (AfDB/OECD/UNDP, 2016).

Developed countries still outpace emerging economies as a source of FDI into Africa. The United Kingdom, the United States and France are the biggest investors from OECD economies, while China is the largest investor in terms of FDI inflows from emerging economies (AfDB/OECD/UNDP, 2016).

### Large cities attract a major share of FDI

Large cities attract a dominant share of FDI flows. Cairo, Casablanca, Johannesburg and Lagos attract a large share of FDI, while cities like Kigali and Maputo have been growing in importance (AfDB/OECD/UNDP, 2016). Every year from 2004 to 2015, the top ten destination cities for FDI in Africa attracted on average more than 30% of total investment projects to the continent (Figure 1.3).

Figure 1.3. FDI projects in Africa, 2004-15



Note: Analysis excludes mining and retail investments.

Source: Authors' calculations based on data from fDi Markets (2017), [www.fdimarkets.com](http://www.fdimarkets.com) (accessed 13 January 2017).

Finally, an OECD econometric analysis in 2016 of the manufacturing sector finds that a large share of FDI flows to Africa is driven by the expanding domestic purchasing power of the urban middle class. Foreign investment was no longer exclusively interested in obtaining natural and agricultural resources and was looking for a low-cost labour. As a result, evidence shows that FDI going to urban areas in Africa can be classified as both “market seeking” and “resource seeking”, with the availability of infrastructure playing a large role for the transport of natural resources (AfDB/OECD/UNDP, 2016).

### China's new normal: Short-term challenges for Africa's growth

To drive growth, China is now shifting from an export- and investment-driven economy to greater reliance on domestic consumption. This lower and more balanced growth pattern will have a marked effect on Africa. Falling Chinese demand also has depreciated commodity prices. This is of particular concern for Africa because high commodity prices have been one of the factors underpinning Africa's strong economic performance since the early 2000s. The *African Economic Outlook 2016* identifies four main channels through which the African economy will be impacted in the short term by China's slowdown:

- slower global growth, which has a particular impact on low-income countries and commodity exporters;
- reduced export earnings from trade;
- lower commodity prices, which has the potential to reduce corporate and public savings; and
- reduced liquidity supply.

Of these four channels, impacts on trade and on commodity prices are particularly important given their large spillover effects. China's trade with Africa has increased substantially since 2000; China has overtaken many other countries to become one of Africa's largest trading partners.

Accordingly, the strong economic performance of China in the past decade has had a large impact on the economic growth of the African continent. Consequently, the current Chinese slowdown has hurt the trade relationship between China and Africa with negative consequences on the economic performance of the latter.

In the longer term, the overall net effect of China's rebalancing is likely to change the composition of exports from Africa. Evidence shows that Chinese consumption-led growth is likely to boost African exports of consumer goods and agricultural products (AfDB/OECD/UNDP, 2016).

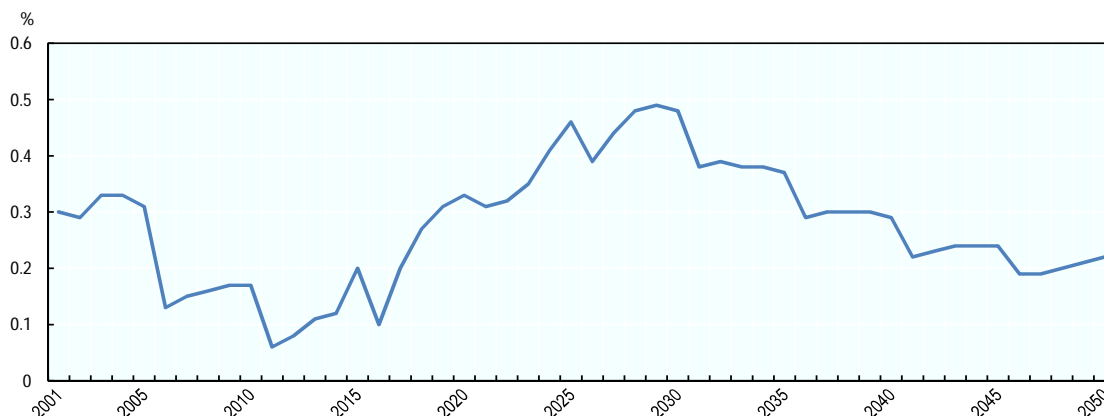
## **GROWING AFRICAN CITIES: CHALLENGES AND OPPORTUNITIES FOR THE PRIVATE SECTOR**

Urbanisation in Africa is occurring at an unforeseen rapid pace. The population of cities has doubled in 20 years to reach 472 million in 2015. Moreover, while 40% of Africa is currently urbanised, the United Nations Department of Economic and Social Affairs projects that Africa will reach 50% urbanisation by the mid-2030s (UN-DESA, 2014). With such unprecedented growth, African cities are an important target for companies in many sectors such as consumer goods, logistics, business and finance services, real estate and transport. Important factors that can potentially influence foreign investment include population growth, the quality of infrastructure and the potential development of intermediary cities.

### **A growing population**

Africa's population is growing fast. Within the coming decades, Africa will have one of the most favourable demographic structures in the world with the working-age population (defined as 12-64) growing faster than the total population (AfDB/OECD/UNDP, 2016) (Figure 1.4). The *African Economic Outlook 2016* estimated that Africa's population growth could boost its annual GDP per capita growth by up to 0.5% over the next 15 years (AfDB/OECD/UNDP, 2016).

**Figure 1.4. Africa's potential demographic dividend**  
As percentage points added to GDP per capita growth



Note: Potential impact on GDP per capita growth (in percentage points) as calculated by percentage change in the proportion of the working-age population.

Source: AfDB/OECD/UNDP (2016), *African Economic Outlook 2016*, <http://dx.doi.org/10.1787/aeo-2016-en>.

Africa's unprecedented demographic growth is opening up new investment opportunities in sectors other than traditional extractive industries. Companies are introducing new products and developing innovative services tailored to new and emerging market demand (OECD, 2016). Beyond the opportunity offered by population growth, the size of the middle-class population also will offer growing business opportunities. Africa's middle class is expected to reach 1.1 billion, or about 42% of the population, by 2060 (Deloitte & Touche, 2012), representing a significant untapped consumer market.

### Low quality of urban infrastructure

Urban infrastructure is essential to providing citizens with affordable energy, sanitation, waste, transport and healthcare services. Significant investment is required to increase the quality of African infrastructure and support current urbanisation rates. It has been estimated that sub-Saharan Africa alone will need USD 360 billion to be invested by 2040 in four main areas: energy, transport, water, and information and communication technologies (PIDA, 2011).

Lack of infrastructure can have a major impact on business competitiveness. For example, 4.9% in annual sales are lost due to electrical outages in sub-Saharan Africa, with the corresponding cost of fuel for backup power generation estimated to be at least USD 5 billion in 2012 (IEA, 2014). Moreover, poor transport infrastructure accounts for 40% of logistics costs in coastal countries and 60% in landlocked countries (UN-Habitat, 2014). A number of barriers to infrastructure development currently exist, including insufficient regulatory frameworks, limited access to finance, urban overcrowding and inefficient real estate markets.

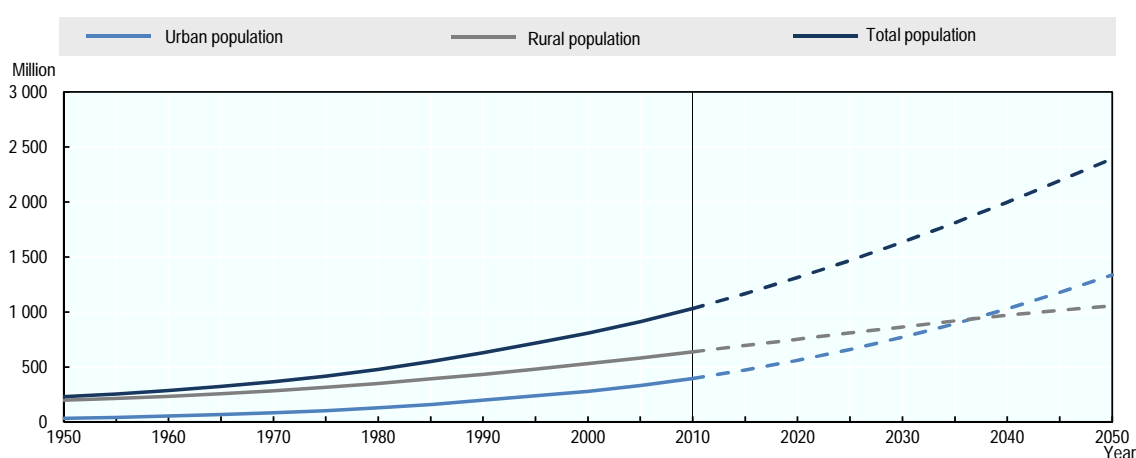
Public policies are essential to promoting urban infrastructure investment. The Kenyan regions of Nakuru North and Nyando provide an example. While both regions have comparable urbanisation levels, Respectively, Nakuru has a median per capita income of USD 1 077 and Nyando USD 259. One of the major differences between these two regions is that Nakuru has

invested heavily in infrastructure and public services while Nyando has not (Losch, Fréguin-Gresh and White, 2012).

### Intermediary cities are capturing much of the rural and urban demographic growth

Many African countries are experiencing growth of both urban and rural populations (Figure 4.5). Africa is unique amongst most urbanising continents in that the rural population in sub-Saharan Africa is expected to continue to grow by more than 353 million between 2015 and 2050 (AfDB/OECD/UNDP, 2016).

Figure 1.5. African population growth trends, 1950-2050



Source: AfDB/OECD/UNDP (2016), *African Economic Outlook 2016*, p. 146, <http://dx.doi.org/10.1787/aeo-2016-en>.

One of the features of Africa's urbanisation process is that urbanisation has mostly been happening in a rural-urban interface. Intermediary cities, or rural-urban conurbations, are defined as extended areas of rural areas, villages, towns and cities of fewer than 500 000 inhabitants (AfDB/OECD/UNDP, 2016).

In this context, intermediary cities can play an increasingly important role in supporting both rural and urban population growth. Two-thirds of African urban population growth between 2010 and 2030 is expected to take place in such intermediary cities, which can potentially attract rural migrants and help reduce congestion in larger urban centres (AfDB/OECD/UNDP, 2015). Their areas also connect rural inhabitants to a wider range of goods and services and help develop labour-intensive industries such as textiles or agro-processing. Several African countries, including Ethiopia, Madagascar, Morocco, Rwanda and South Africa, have been specifically promoting the development of intermediary cities as a response to rapid population growth (AfDB/OECD/UNDP, 2016).

## **PUBLIC POLICIES TO SUPPORT AFRICA'S URBANISATION GROWTH**

National urban strategies, which are essential for Africa's long-term development, are unevenly implemented across the continent. In 2016, out of 51 African countries, only 16 had adopted national urbanisation strategies, focusing on social-service delivery, infrastructure development, financing and land ownership (AfDB/OECD/UNDP, 2016). Some key issues to be considered when implementing these strategies include financing African cities, increasing public sector capacity building, managing intermediary cities and using technology-oriented policies to tackle urban challenges.

### **Improving resources to finance African cities**

Limited financial resources remain a major challenge for African cities, and progress towards more fiscal decentralisation and subnational decision-making is not adequate (AfDB/OECD/UNDP, 2015). Difficulties in generating local revenues also mean that national transfers remain a predominant source of funding for cities. Even in contexts of devolution of powers, such as in decentralised countries like Tanzania and Uganda, or federal countries like Nigeria, local governments receive most of their revenues from central administrations (AfDB/OECD/UNDP, 2015).

Examples of decentralisation show that local governments have been able to raise their revenues through private finance and borrow from financial markets, provided that they respect strict macro-prudential guidelines. Johannesburg has been issuing municipal bonds since 2004 to finance the city's large-scale infrastructure projects. In 2014, the city also issued green bonds amounting to ZAR 1.46 billion to fund initiatives such as the installation of 43 000 solar water heaters in districts that lack access to energy or where the populations cannot afford energy tariffs (JSE, 2014).

While financial markets can help mobilise additional resources to finance African cities, stock markets in Africa are still illiquid and fragmented (AfDB/OECD/UNDP, 2016). Better integration and harmonisation of financial markets and regulatory reforms could help further improve access to finance for investments.

### **Building public sector capacity**

Local government officials need to have adequate skills to design appropriate urban policies that promote sustainable projects and engage with the private sector. Investments and capacity building in urban planning could help reduce the cost of infrastructure development. Moreover, the current shortage of skilled professionals also might be exacerbated by the lack of incentives to pursue careers as civil servants (AfDB/OECD/UNDP, 2016).

In these cases, governments need to be proactive to provide the right environment for human capital development. In Ethiopia, the Ministry of Urban Development and Housing and the Ethiopian Civil Service University worked together to increase urban management graduate-level training twelvefold, reaching a yearly enrolment of 350 students between 2006 and 2015 (AfDB/OECD/UNDP, 2016). In South Africa, the Municipal Institute of Learning was established by

the eThekweni Municipality in Durban and trained 3 600 local government officials in various urban development fields, including waste management, sanitation and strategic planning (AfDB/OECD/UNDP, 2016). Other types of organisations also can fill the skills gap. For example, the Association of African Planning Schools, a network of 55 universities in 18 African countries, has been training and facilitating knowledge exchanges amongst urban planners since 1999 (AAPS, 2016).

### **Supporting technology-oriented policies for enhanced urban development**

Policies supporting the use of technological solutions can further improve the connectivity and sustainability of African urban areas, as well as their governance and monitoring capabilities. In Rwanda, the Ministry of Youth and ICT demonstrated its commitment to technology for private operators by installing 4 500 kilometres of fibre optic cables and making available both 4G Long Term Evolution (LTE) in Kigali and extensive 3G access throughout the country (White, 2015). This increased connectivity has opened a space in which new efficient and sustainable technologies can emerge, driven by foreign multinational companies such as the telecommunications firm Ericsson. Moreover, recent announcements by the government of Rwanda of such services such as “e-imboni”, a system allowing public institutions to share documents electronically and securely, and “Irembo”, a one-stop Internet portal for e-government services, help improve time management and reduce paper use (Engerati, 2016).

Better information and communications technology (ICT) systems also can improve tax administrations and increase the tax base for cities to finance development projects. A study on revenue collection in Cameroon, Côte d'Ivoire, Mauritius, Morocco, Rwanda, Senegal, South Africa and Tunisia found that tax-to-GDP ratios range from 16.1% to 31.3% compared to the 34.4% average in OECD countries (OECD/ATAF/AUC, 2016). A study of 15 African countries found that ICT allowed for reduced tax administration and compliance costs, reinforced revenue and collection, increased transparency and integrity, and increased risk management (ATAF, 2016).<sup>2</sup> One example is the Kenya Revenue Authority's iTax system, which increased taxpayer registration from about 70 000 to nearly 3 million taxpayers between March 2013 and September 2014 (ATAF, 2016). This was made possible through partnerships with Kenya's commercial banks, where taxpayers could use mobile devices to pay their taxes through the iTax Payment Gateway feature. Moving towards electronic filing in Kenya also has implications for businesses as the number of steps required for corporations to file their taxes, from pre-filing to post-assessment, has shrunk from 59 to 16. In the case of Rwanda, the compulsory use of electronic pre-filing reduced the time to prepare files and pay taxes by 10 hours, from 119 hours to 109 in 2014-2015 (World Bank, 2016). OECD studies also highlight how streamlining tax administration can help improve the investment climate by managing incentives more effectively (OECD, 2013; OECD, 2014a; OECD, 2015).

## PRIVATE SECTOR INSIGHTS ON URBANISATION CHALLENGES IN AFRICA

The challenges posed by rapid urbanisation in Africa will not be solved without private sector participation. Within this context, participants at the EMnet Africa meeting highlighted a number of relevant topics, including the need for strong partnerships, the importance of sharing risks when financing cities, the urgency of enhancing local skills and the potential of technology to support urbanisation.

### Partnerships can be mutually beneficial for the delivery of urban projects

Participants suggested that PPPs in infrastructure projects can be mutually beneficial for both the private and public sectors. A relevant example is the construction of the Dakar Diamniadio toll highway in Senegal. The national government, the French construction company Eiffage, and several international donors and financial institutions co-operated successfully to reduce the commuting time from the centre of Dakar to its suburbs from two hours to 30 minutes (Carter, 2015). In Benin, the government used a PPP structure to develop a new container terminal for the port of Cotonou. A 25-year concession to build the new terminal was awarded to Groupe Bolloré with the purpose of doubling container traffic in the first eight years of operations, create 450 jobs, generate up to USD 300 million in taxes, and stimulate trade with neighbouring land-locked countries such as Niger, Mali and Burkina Faso (Kenny and Lavanchy, 2013).

Nonetheless, effective regulatory frameworks are still missing in numerous countries, with only a few African countries such as Morocco, Tunisia and Egypt having structured PPP programmes (PwC, 2014; OECD, 2014b). Developing a PPP framework at the national level can help reduce the cost of doing business, since it allows for more clarity on the terms, conditions and procedures for the design and implementation of projects. This can help companies prepare their business plans and aid municipalities in identifying the expected benefits for local communities. However, OECD analysis shows that PPPs are difficult to implement and require strong institutional and human capacities that are often lacking. In this case, PPPs could instead drive the cost of investment up (Bitran, Nieto-Parra and Robledo, 2013).

Risks remain for successful PPP implementation in Africa. Financing risks, followed by regulatory and political risks, are the most significant obstacles for PPP implementation, according to BMI's Infrastructure Project Finance Ratings - an assessment of the risks in raising and repaying funds over the lifecycle of a project (BMI Research, 2013). For many infrastructure projects in the region, such as the pipeline project in the Niger Delta, security remains a main concern for both international workers and physical infrastructure (the pipeline is often a target of vandalism) (PwC, 2014).

Companies present at EMnet Africa also confirmed the importance of co-operation with banks and international organisations. For example, Morocco's National Power and Drinking Water Office (ONEE) chose the Spanish firm Abengoa to lead a seawater desalination project, which was supported by the InfraMaroc investment fund and a consortium of local banks led by the Banque Marocaine du Commerce Extérieur. Once operational, the plant will provide 800 000 people with water daily and play an important role in the region's economic development (ICA,



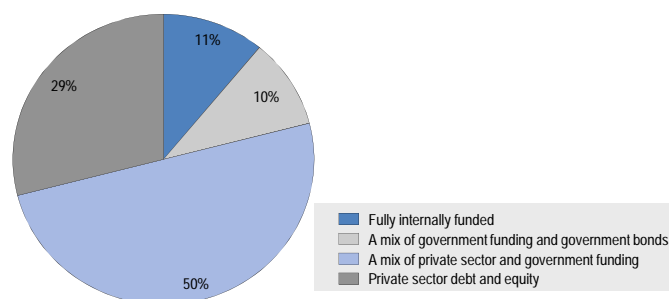
2016). On a regional scale, the European Commission (EC) created the Africa Investment Facility in 2015 to combine public and private financial resources with EC grants to reduce the cost of infrastructure projects (European Commission, 2015).

### Financing African cities will come from various sources

Significant investment is needed to ensure that quality infrastructure can support current urbanisation rates in Africa. Using the Africa Infrastructure Country Diagnostic (AICD), it has been estimated that sub-Saharan Africa needs yearly investments of about USD 90 billion, including USD 60 billion of new infrastructure and USD 30 billion for maintenance, to close its infrastructure investment gap (AfDB/OECD/UNDP, 2016). This estimate finds that close to USD 30 billion should go to each of three categories: national-level productive infrastructure (including railways, ports, airports, telecommunication networks, highways, energy generation and transmission), public utilities and services in rural areas, and public utilities and services in urban areas. Urban investment alone is estimated to vary based on population densities and rates of urbanisation and falls between USD 12.5 billion and USD 35 billion per year (Paulais, 2012).

To close this investment gap, and in a context of constrained public resources, private sector financing can play an increasingly important role. A PwC survey of key actors in the African infrastructure sector (including private companies, donors, financiers and government organisations) found that 89% of respondents expected to involve the private sector in the funding of infrastructure projects (PwC, 2014) (Figure 1.6). The example of the telecommunications sector in Africa demonstrates how governments can successfully foster more private participation in infrastructure projects (Box 1.1).

Figure 1.6. How do companies expect their infrastructure projects to be funded in the short-term?



Note: Responses to the question “How do you expect your infrastructure projects to be funded over the next year?”, base of 95 respondents.

Source: PwC (2014), *Trends, Challenges and Future Outlook*, [www.pwc.co.za/en/assets/pdf/capital-projects-and-infrastructure.pdf](http://www.pwc.co.za/en/assets/pdf/capital-projects-and-infrastructure.pdf).

However, OECD analysis on the overall picture of financial support for infrastructure development in developing countries shows that public investment still plays today the most important role through funding from national governments and official development assistance.

The private sector on average is financing a third of total infrastructure investments in developing countries (Miyamoto and Chiofalo, 2015).

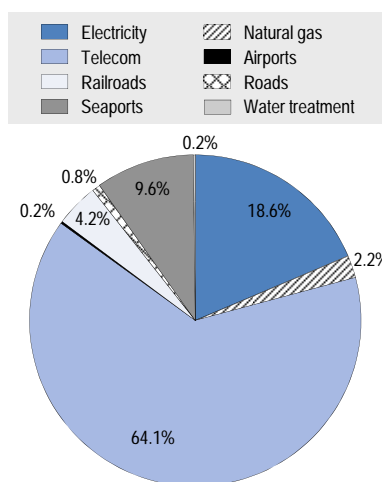
### Box 1.1. Attracting private financing in Africa’s telecom sector

The African telecom sector offers examples of successful private participation in infrastructure. From 2005-13, over 64% of private sector infrastructure commitments in sub-Saharan Africa went into the telecom sector (Figure 1.7).

Predictable revenue streams and low risk during the development phase have been major enabling factors for private sector investment in the telecom sector. Moreover, the restructuring of the sector by breaking up national monopolies and deregulating has been successful in encouraging the participation of private players. For example, since 1999 Nigeria’s Public Enterprises (Privatisation and Commercialisation) Act has encouraged the participation of foreign multinationals in the national telecommunications sector. The liberalisation of the telecommunications market in Nigeria has led to an estimated USD 25 billion in investments in ICT.

Source: Gutman, J., A. Sy and S. Chattopadhyay (2015), *Financing African Infrastructure*, [www.brookings.edu/wp-content/uploads/2016/07/AGIFinancingAfricanInfrastructure\\_FinalWebv2.pdf](http://www.brookings.edu/wp-content/uploads/2016/07/AGIFinancingAfricanInfrastructure_FinalWebv2.pdf).

Figure 1.7. Sectoral share of private investment commitments in infrastructure in sub-Saharan Africa, 2005-13



Note: Data from the World Bank’s Private Participation in Infrastructure (PPI) Financing database, including concessions (operation and management contracts with major capital from the private sector) and greenfield projects (whether new project or expansion of existing one).

Source: Gutman, J., A. Sy and S. Chattopadhyay (2015), *Financing African Infrastructure*, [www.brookings.edu/wp-content/uploads/2016/07/AGIFinancingAfricanInfrastructure\\_FinalWebv2.pdf](http://www.brookings.edu/wp-content/uploads/2016/07/AGIFinancingAfricanInfrastructure_FinalWebv2.pdf).

## Business linkages can help foreign multinationals penetrate new markets

Developing business linkages with local partners can be highly beneficial for multinational firms seeking to expand in African urban markets. This can occur in three different ways: 1) backward linkages with suppliers; 2) linkages with technology partners; and 3) forward linkages with distributors and retailers (UNCTAD, 2010):

- **Backward linkages** can occur when multinational firms buy inputs from local suppliers such as services or raw materials. In 2013, GE Transportation, a subsidiary of General Electric, set up a partnership with South Africa's Transnet Rail Engineering to assemble and manufacture locomotives at Transnet's Koedoespoort facility in Pretoria, South Africa. The goal was to reach 40% in local content and involve several local small- and medium-sized enterprises as suppliers (GE South Africa Technologies, 2013).
- **Linkages with technology partners** can be strategic partnerships, joint ventures or licensing deals. One example is the multinational ICT provider Huawei and its partnership with the Kenyan mobile network operator company Safaricom to improve local security in the areas covered by Huawei's Safe City Solution project (Huawei, 2016a).
- **Forward linkages** with distributors and retailers are the result of outsourcing product distribution and local brand name management. Kellogg set up a joint venture with the Singaporean Tolaram Group's Nigerian food distributor Multipro Enterprise Limited to expand sales in Africa (Fick, 2015; Giammona, 2015).

## Local skills are needed to develop sustainable African cities

Participants in the EMnet Africa meeting highlighted their experiences in finding and retaining local talent. In the case of South Africa, for example, a study led by ManpowerGroup found that 34% of employers were encountering difficulties in finding the right candidates. The hardest profiles to find are workers in skilled trades, management executives, office support staff and engineers (ManpowerGroup, 2016). A survey conducted in 2014 by EY of 308 companies operating in 23 sub-Saharan countries showed that 70% of respondents were recruiting to support their growth on the continent, but only one-third of the respondents considered labour market institutions to be effective. The same survey highlighted that workers were more attracted by learning opportunities, career development and quality management than high wages (EY, 2014).

The rapidly changing marketplace and the increased technicality of jobs require companies to train local workers to meet their own hiring needs. For example, Johnson & Johnson's new global public health policy for Africa, together with the University of Cape Town's Drug Discovery and Development Centre, aims to expand research and development (R&D) skills and capacity among African scientists (Johnson & Johnson, 2016). In addition, Cisco Networking Academy programmes are now present in 47 African countries with 810 institutions and have taught more than 92 574 students how to design, build and maintain telecommunications networks (Meads, 2015).

Some firms during the EMnet meeting highlighted the risk that employees benefitting from training become more attractive in the labour market and get hired elsewhere with better job conditions. The same firms, however, confirm that they are willing to take this risk, because the benefits of improving their employees' skills and competencies are greater than the costs of losing some of them afterwards.

## Significant investment opportunities exist for technology solutions in support of African cities

New technologies have the potential to generate significant investment opportunities for African cities. Mobile phone technologies are expected to reach a 97% average subscription rate in Africa by 2017. This has enabled cities to bypass regular fixed landlines and leapfrog the associated maintenance costs developed nations face (Meads, 2015). To fully benefit from digitalisation and the “Internet of Things” (IoT) – the idea of connecting and integrating any device to the Internet – Africa will need to improve its Internet penetration, which was still at 26% in 2015 (Meads, 2015). High-speed broadband development in Africa remains low despite progress in connectivity. Commercial, technical and affordability difficulties to extend coverage to poorer urban districts and remote rural areas seem to be the main reason for this poor performance (Reed, 2016).

The Smart Africa Alliance, for example, places the private sector at the centre of Africa’s ICT development for cities and demonstrates how new technologies can serve as catalysts to attract investments from foreign multinational companies (Box 1.2).

### Box 1.2. Global multinationals in support of smart African cities: The Smart Africa Alliance

The *Smart Africa Alliance* is based on the core principles of the Smart Africa Manifesto, a document that was endorsed in 2014 by all the members of the African Union aimed at accelerating ICT usage for enhanced socio-economic development. The Alliance aims to harmonise regulatory and legal policy frameworks on the continent, generate demand for ICT, establish favourable market conditions, enable the formation of new industries and job creation, and attract USD 300 billion in ICT investments by 2020. To reach these goals, the Alliance puts the private sector at the centre of Africa’s ICT transformation, which is to be efficient, more accountable and open. The initiative therefore involves global companies with extensive expertise in the telecommunications sector across the continent:

- Huawei joined the Alliance in July 2016. One of the first Chinese firms to invest in Africa in 1998, the company now provides improved connectivity solutions in more than 50 African countries, promoting Africa’s digitalisation, fostering skills transfer and improving ICT infrastructure.
- The telecommunications and networking company Ericsson, following its partnership with the government of Rwanda on projects in the public security, financial, transport and utilities sectors as part of the Smart Kigali initiative, joined the Alliance in 2016 to share the expertise it gained with other African nations.
- Inmarsat, a satellite telecommunications company, joined the Alliance in 2015 and is investing in sub-Saharan Africa as part of a two-year programme of the UK Space Agency. It is involved in Nigeria and Kenya, where it seeks to increase connectivity via satellites. And Inmarsat partnered with the Equity Bank Group to help develop access to financial services in more than 200 sites across Kenya.

Source: Huawei (2016b), “Huawei joins Smart Africa to drive Africa’s digital transformation”, [www.huawei.com/en/news/2016/7/Huawei-joins-Smart-Africa](http://www.huawei.com/en/news/2016/7/Huawei-joins-Smart-Africa); Ericsson (2016), “Ericsson joins the SMART Africa Alliance to drive a digital Africa”, [www.ericsson.com/news/160512-ericsson-joins-the-smart-africa-alliance-244039855\\_c](http://www.ericsson.com/news/160512-ericsson-joins-the-smart-africa-alliance-244039855_c); Inmarsat (2016), Digital Frontiers Overview section, Inmarsat website, [www.inmarsat.com/digital-frontiers/](http://www.inmarsat.com/digital-frontiers/); Transform Africa (2013), “The Smart Africa Manifesto”, [www.smartafrica.org/IMG/pdf/smart\\_africa\\_manifesto\\_2013\\_-\\_english\\_version.pdf](http://www.smartafrica.org/IMG/pdf/smart_africa_manifesto_2013_-_english_version.pdf); Smart Africa (2016), *Smart Africa Strategic Vision*, [www.smartafrica.org/IMG/pdf/smart\\_africa\\_strategic\\_vision.pdf](http://www.smartafrica.org/IMG/pdf/smart_africa_strategic_vision.pdf).

## Technology and digitalisation can help cities tackle urban challenges

African cities are facing numerous sustainability challenges related to environmental issues. The economic cost of premature deaths from four environmental risk factors – ambient and household air pollution, unsafe water and poor sanitation – is estimated to have exceeded USD 850 billion in 2013 and is heading towards USD 1 trillion in the near future, or nearly two-thirds of the continent's GDP (Roy, 2016).

New technologies and digitalisation brought in by the private sector can help to solve these sustainability issues while reducing the cost of products and services. For example, using intelligent sensors for motion-reacting street lights could substantially benefit Africa, where only 20% of countries have implemented sustainable strategies on energy usage (AfDB/OECD/UNDP, 2016). Seeing this opportunity, IBM invested in research centres in Kenya and South Africa to make African urban areas “smarter” (IBM, 2016). In Kenya, IBM helped the government to develop applications to improve the city of Nairobi's waste management by monitoring dumpsite capacity, garbage collection time and the time spent in traffic, and road quality (Onyalo, Kandie and Njuki, 2015). Veolia Africa has provided governments throughout the continent with solutions to manage energy supply, clean water and waste services. For example, Veolia's water company *Société d'Exploitation des Eaux du Niger* provided access to water to over 2.7 million people in Niger in 2015 (SEEN, 2015).

## Innovative business models can include Africa's informal economy

The informal economy accounts for up to 50-80% of the overall African economy (Benjamin and Mbaye, 2014). Lack of formal employment and a growing informal sector have been particularly challenging for sub-Saharan Africa. Low productivity and informal jobs are prevalent in urban areas of countries that have based their economic development on natural resource extraction and agricultural exports (AfDB/OECD/UNDP, 2016).

Some companies are using innovative ways to address informality. The Bel Group, a French cheese-making firm, takes informal entrepreneurs on board via a network called “Sharing Cities” to build and optimise its distribution systems based on existing street-vendor communities across Africa (Guesné and Ménascé, 2014). It also provides benefits to informal micro-entrepreneurs, such as training and access to micro-credit, thus providing support towards the formalisation of their businesses. Another example is the spread of digital payment systems, such as Orange Money in Côte d'Ivoire and M-Pesa in Kenya, that provide informal businesses with easier access to credit and allows them to interact more easily with the formal economy (AfDB/OECD/UNDP, 2016).

## CONCLUSION

The private sector can play a significant role in Africa's urban development. Participants highlighted the importance of technology, connectivity and digitalisation to make cities more efficient and sustainable. Businesses also can support the generation of more formal job opportunities and encourage skills development. Setting up business linkages with local companies was perceived as a critical step to facilitate foreign investment, but finding suitable local partners remains challenging. Since two-thirds of urban investments are still to be made by 2050, financing for African cities will come from various sources and will increasingly involve the private sector in the future.

The challenges posed by rapidly growing cities also will require greater government support. EMnet Africa participants highlighted three main areas where public policies are needed. First, capacities and skills of civil servants must be reinforced. Beyond this, the private sector finds it difficult to hire local staff with the skills needed to support business operations. Secondly, while some PPPs have supported the completion of large infrastructure projects, such as Senegal's Dakar-Diamniadio toll highway and Cotonou's container terminal in Benin, efforts to create nationwide regulatory frameworks for PPPs could further reduce associated costs and risks. Finally, commitment from governments is necessary to enhance FDI in value-added sectors. The example of telecommunications is particularly relevant to show how an appropriate enabling environment can be a key success factor in attracting private investment.

## Notes

- <sup>1</sup> West Africa comprises Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. East Africa comprises Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Seychelles, Somalia, South Sudan, Sudan, Tanzania and Uganda.
- <sup>2</sup> The following countries were included in the ATAF study: Burundi, Cameroon, Gambia, Kenya, Lesotho, Mauritius, Rwanda, Senegal, Seychelles, South Africa, Swaziland, Tanzania, Togo, Uganda and Zimbabwe.

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