Knowledge Leadership

The Challenges of Urbanization in Sub-Saharan Africa: A Tale of Three Cities

by Yuwa Hedrick-Wong and George Angelopulo

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Foreword: A Tale of Three Cities

Urbanization is one of the most significant trends in Sub-Saharan Africa at present, with rural populations migrating at unprecedented rates to urban hubs in search of employment and economic growth.

In this report, the second in the MasterCard series of research reports into Africa entitled: "The Challenges of Urbanization in Sub-Saharan Africa: A Tale of Three Cities", the research team of Dr. Yuwa Hedrick-Wong and Professor George Angelopulo offer insights into urbanization in three significant African cities– Lagos, Nairobi and Maputo.

The report highlights that urbanization is key to boosting productivity and economic activity in developing markets, but unless it is carefully planned and implemented, it can lead to structural weaknesses and even breaking points in cities that are not adequately prepared for the uncontrolled influx of rural populations seeking to improve their lives.

Each of the three cities discussed in the report has noteworthy successes in servicing their growing populations, but each has also been challenged in underestimating the scale of urbanization and the planning and development needed to accommodate it.

The consequence of this includes, among others, the mushrooming of slums, pressure on infrastructure and the social problems that accompany unemployment in an urban setting. Failing to prepare for these, or to address them adequately, could see emerging markets fall into the trap of replacing rural underdevelopment with urban underdevelopment - a destructive scenario that betrays the enormous potential that is so apparent on the African continent.

So where and how can African markets find the balance between the benefit of increased economic activity of urban dwellers with the costs of accommodating them with appropriate infrastructure and systems?

While getting urbanization right is key to positioning for future economic growth, it is important to note that there is no single fast-fix that can be applied to any of the problems afflicting Africa's urbanized populations. There is significant cultural, social and economic diversity from region to region, and indeed city to city – and the key to success in these markets will be careful management of the resource-driven expansion, with local solutions that respond to local situations.

Earlier this year, the first in a series of four MasterCard Worldwide Insights reports on Africa was released entitled: "Taking Stock: The State of Sub-Saharan Africa" by Dr. Azar Jammine and Dr. Martyn Davies - and offered an overview of the current status quo on the continent and insights into the opportunities and inhibitors for those seeking to do business on a continent that is variously seen as challenging to invest in or as the world's current greatest opportunity for significant growth. Should you wish to view that report, please visit www.masterintelligence.com

I trust that you will find this second MasterCard Insights report into African markets a comprehensive and useful tool for your future business planning.

Yours sincerely,

Michael Miebach
Division President, Middle East & Africa
MasterCard Worldwide

The Challenges of Urbanization in Sub-Saharan Africa: A Tale of Three Cities

Introduction: Urbanization and Development

Urbanization is today a truly global phenomenon. Even though many of the developed markets had experienced rapid urbanization when they industrialized in the 19th and 20th centuries, their urbanization process has never really stopped, and has been gaining new momentum recently. A dramatic illustration of this is in Germany, where in the last decade the wolves have returned to rural regions as small towns and villages are increasingly becoming depopulated as young people continue to move to live in cities.[1] For the developed markets, a renewed momentum in urbanization is critical for revitalizing their economies. Their large urban regions have become the cradle for nurturing their creative industries, facilitating business innovations, and driving economic growth with ideas and human ingenuity.

In emerging markets, urbanization is even more important as a key driver of development and growth. Shifting underemployed rural people to more productive employment in urban areas is fundamental to lifting productivity overall, which in turn constitutes a sustainable platform for future investment and growth. Getting urbanization right, however, has been a major challenge for emerging markets everywhere. Indeed, managing urbanization effectively requires emerging markets to succeed in areas where they are typically the weakest: sufficient investment in physical and human infrastructure, effective policy coordination between central and municipal governments, appropriate and forward planning and enforcement, creating a supportive environment for private businesses to thrive and create jobs, provision of law and order, and assuring effective governance at all levels of administration. It is therefore not surprising that in many emerging markets urbanization has been poorly managed. The results are plain for all to see in many cities in emerging markets: massive slums, lack of basic services for most urban dwellers, high urban unemployment and underemployment, chronic traffic congestion and gridlocks, chaotic zoning and lack of enforcement, and overall poor and deteriorating urban quality of life. Thus, in failing to get urbanization right, many emerging markets risk falling into the trap of creating massive urban sprawl of poverty that merely replaces rural underdevelopment with urban underdevelopment.

Among the most important emerging markets today, rapid urbanization has been one of the most salient features of China's development success. China appears to have gotten urbanization right. It is therefore worthwhile examining China's urbanization experience in some detail to identify appropriate lessons learned. The record so far is an impressive one. In the mid-1980s, urban population represented less than a quarter of China's total population. By 2009, urban population had risen to over half of the total population. In the past decade and a half, over 20 million people were urbanized each year on average. Thus, the net addition of urban population each year in China is about equal to the entire population of Australia. This rate of urbanization is historically unprecedented. Urbanization in China is expected to continue to grow at a high rate of about 2.7% per year in the foreseeable future. Rapid growth of urban population in China has not been limited to a few key cities, however. In the last decade and a half, secondary cities away from the coastal region have actually been growing faster than the big three of Beijing, Shanghai and Guangzhou, making urbanization more evenly spread than in many other emerging markets.

In spite of this rapid pace of urbanization, there is something distinctive about China's cities; making them unique among cities in the developing world. Many first time visitors notice it the moment they leave the airport in one of the big cities on their drive to downtown; or when they travel within China from one city to the next. Chinese cities do not have the sprawling slums that are the hallmarks of cities in emerging markets such as Philippines, India, Nigeria, or Brazil. The fact that Chinese cities have escaped the curse of urban slums is a result of both its socialist legacy of highly centralized control of people's movement, and an unintended consequence of its rural reform.

Under socialist central planning, population movement was strictly controlled in China. For much of the period from 1949 when the Communist Party won the civil war to 1978 when economic reform began; permission was needed from one's government work unit to buy a simple bus or train ticket to go to a nearby city. For the first three decades after the founding of the People's Republic, there was virtually no rural-urban migration. In order to stay in a city, a person had to have an official permit, the *hukou*, without which they would not have been able to find a job, rent a flat, enroll their children in school, or receive medical care. In other words, a rural person would have all the basic amenities denied them without a *hukou*, even if they were enterprising enough to sneak into a city unofficially. Given that the government owned and allocated all urban housing, ran all the healthcare facilities and schools, and assigned all the jobs, it was very easy to enforce migration control: no *hukou*, no nothing.

Today, an urban *hukou* can be obtained relatively easily once a person can prove that they have a job in the city. In fact, the city governments of many second- and third-tier cities, in order to expand faster, offer an official *hukou* to anyone from the outside who has purchased a private condo above a certain minimum value. Under these conditions, rural-urban migration could have exploded into uncontrolled torrents of opportunity-seeking migrants, following the patterns seen in many other other third-world cities. But it didn't happen in China.

The fact that it didn't has a lot to do with land ownership in rural China. There is, strictly speaking, no private land ownership yet. Land reform had given rural households a long-term lease (30 years) for the use of a plot of land; and recent reform measures allow them to use the land as collateral for investment loans, or to lease it to other households to consolidate the plots into a a larger-size farm, etc. But, if the rural household were to obtain an urban *hukou,* it would automatically lose the right to the land in its home village. So it is an either/or choice; no household can be both urban and rural at the same time. This creates a de facto cost-benefit calculus that the rural household has to consider carefully. Is the urban job secure enough to give up the land in the village? Is the pay sufficiently high to compensate for the higher costs of living in the city? Or is it better to work in the city as a migrant worker (officially defined as working in a host city for more than six months at a time) and then return to the home village to work on the land just before the planting season starts, with extra cash in pocket saved from working in the city? Thus, because of the trade-off between the land in the village and the *hukou,* in the city, rural-urban migration is self-regulated. A new arrival in the city tends to be someone with a relatively secure job and a pay level good enough to cover the higher costs of urban living with something to spare. Rural-urban migrants with no jobs and poor employment prospects in a city, in other words, potential slum dwellers, are therefore extremely rare; and hence the absence of sprawling urban slums in China's cities.

This self-regulated nature of rural-urban migration then responds directly to employment opportunities created in the cities. Between 1995 and 2007, about 150 million new urban jobs were created in China, which were sufficient to lure some 300 million people (workers and their families) to resettle in China's cities. So China's cities are very powerful job creation machines. And an important factor that enables China's cities to function as job creation machines is their rapidly improving infrastructure. Better infrastructure has been critically important in lowering the costs of logistics and enhancing information flow, thereby attracting new investments into urban areas. It also allows cities to expand physically.

A more detailed look at the components of the 300-million increase in urban population over the last decade and a half reveals the importance of infrastructure development. Based on official data,[2] about one-third of this increase has come from rural migration and about 15% from organic growth. The majority, about 52%, however, has come from cities expanding into adjacent rural areas — a process where areas previously rural are transformed into urban. Both expanding cities and newly-urbanized rural areas require significant infrastructure improvements, including transportation and telecommunications links, water and electricity supply, housing development, and typical urban facilities such as shopping malls, tertiary health care and higher education services, and financial districts— all of which require massive investment. While investment in infrastructure creates jobs, this is only the beginning of the process. Once the infrastructure is in place, business development then follows, creating even more jobs. Infrastructure development, business investment, and urbanization are therefore three mutually-reinforcing trends that characterize China's economic growth.

This quick review of China's urbanization experience shows both lessons learned that could be transferred to other emerging markets, and the limits of this transferability. A high level of investment in infrastructure is clearly crucial to ensure that urbanization is generating the kind of economic efficiency that attracts business investment and job creation, while building a better environment for people to live and work. This is true for urbanization generally, and especially so for emerging markets that lack such infrastructure to begin with. On the other hand, China's political system and its central planning allow the authorities to control rural-urban migration, fast track investment projects, and direct the flow of financial resources to fund the investment, often with draconian means.[3] These conditions are not easily replicable in most emerging markets, especially in places where the democratic process is better established, and where decision-making requires at least some form of consensus at grassroots level. So China's model of urbanization, as successful as it may have been, could not be simply copied, nor should it be. So for better or worse, many emerging markets will have to meet the challenge of urbanization by the means that are at their disposal, inadequate as they frequently are. The Sub-Saharan Africa region is no exception.

At present, the urbanization level of Sub-Saharan Africa is estimated at around 36% of its total population. As shown in Table 1, South Africa is the most urbanized, with 60% of its population considered urban. This is followed by Angola at 55%, Ghana at 49%; and Nigeria at 47%. Among the nine key markets in the region listed in Table 1, Kenya is the least urbanized at 21%.

In terms of urbanization rates, however, Mozambique's urban population has been growing the fastest among the nine key markets over the 2005 to 2008 period, at an average of 2.2% per year, with Angola and Tanzania tied for second place at 1.7%, as seen in Table 2. The slowest is South Africa 0.8%. This is not surprising as South Africa is already a highly urbanized society with some 60% of its population being urban.

Table 1. Urbanization in Key Sub-Saharan Africa Markets (2005-2008)

Sub-Saharan Africa Average	36%
Angola	55%
Ghana	49%
Kenya	21%
Mozambique	36%
Nigeria	47%
South Africa	60%
Tanzania	25%
Zambia	35%
Zimbabwe	37%

Source: Estimated with UN data

Table 2. Urbanization Growth Rates of Key Sub-Saharan Africa Markets (2005-2008)

Sub-Saharan Africa Average	1.3%
Angola	1.7%
Ghana	1.5%
Kenya	1.3%
Mozambique	2.2%
Nigeria	1.6%
South Africa	0.8%
Tanzania	1.7%
Zambia	0.3%
Zimbabwe	1.3%

Source: Estimated with UN data

Table 3. Urban Per Capita Income (in 2008 US$)

Market	Urban Per Capita Income	Urban Per Capita Income as Percentage of National Average
Angola	US$2,211	124%
Ghana	US$874	130%
Kenya	US$1,423	160%
Mozambique	US$582	134%
Nigeria	US$1,645	138%
South Africa	US$6,266	126%
Tanzania	US$658	147%
Zambia	US$1,304	140%
Zimbabwe	US$191	141%

Source: Estimated with World Bank data

Among the nine key markets in Sub-Saharan Africa, there is great variance in their average urban per capita income, from as low as US$191 in Zimbabwe to South Africa's US$6,266. Consistent with other emerging markets, the urban economies of Sub-Saharan Africa are also more developed with higher incomes than their rural counterparts. As Table 3 shows, however, there are significant differences between the nine key markets in the region in the size of the urban-rural gap. The urban-rural gap is represented by urban per capita income as a percentage of average per capita income for the country as a whole. When examined in such a way, Kenya has the biggest urban-rural gap, with the urban per capita income being 60% higher than the national average. Angola, on the other hand, has the smallest urban-rural gap; its urban per capita income is only 24% higher than the national average. The higher per capita income in the urban economy is the primary cause of rural-urban migration. The bigger the gap, the more motivated rural people are to move to urban areas to seek a better life. Hence, an important part of getting urbanization right is to ensure that there are enough jobs created in urban areas to absorb the rural inflow; otherwise urban unemployment and underemployment, slums, and endemic poverty will become part of the features of urban life.

This brief overview of urbanization in Sub-Saharan Africa suggests that with the exception of South Africa, the region is still in a relatively early phase of urbanization. But the region is urbanizing, as seen in the data shown in Table 2. So the region must get urbanization right in order to ensure its future development success. As suggested above, there is no simple one-size-fits-all solution to the urbanization challenge. The conditions on the ground are a lot more nuanced that the usual generalizations may portray, and, as the saying goes, the devil is in the detail. In order to illustrate the current conditions of the urban environments in Sub-Saharan Africa, three cities are chosen for an in-depth review: Lagos, Maputo, and Nairobi.

A Tale of Three Cities: Lagos, Nairobi, and Maputo

The prognosis for Africa's cities remains mixed. In the past three decades few have predicted a bright future for Africa's urban areas. The overriding sentiment is encapsulated by the assessment that "Africa boasts many huge, rapidly growing cities, but it's hard to identify many of these places— like Lagos, Luanda or Kinshasa— as bright prospects.'[4] But an alternative view is increasingly being heard. "Africa has a larger middle-class population than India. It is undergoing rapid urbanization, bringing millions out of rural employment. Growth in Sub-Saharan Africa will be between 4% and 7% this year, a figure at least double anything expected in Europe or America. There will be plenty of traps for the unwary, but just as five years ago everyone said investors should look to China, we may be on the verge of a dash to Africa."[5] The view of Africa and its urban environment is certainly changing.

In assessing urbanization in Sub-Saharan Africa, it is worthwhile looking at specific cases, and in this discussion it is three prominent cities in the African landscape that fall under the microscope. Lagos, Maputo and Nairobi are geographically dispersed and they vary in size and importance in their regions and on the continent as a whole. They are unique, but they also share certain characteristics with many of Africa's urban agglomerations, and serve well to reflect the current state of the African city.

Lagos

Lagos was originally part of the Kingdom of the Yoruba. Following the arrival of the Portuguese in the early 1400s it became a major slave port, continuing with the trade of slaves up to the mid 1800s. It was annexed by Britain in 1861, ostensibly to stop the slave trade but also as a way of controlling palm and other trade in the region. In 1914 Nigeria became a British

Chart 1. Lagos

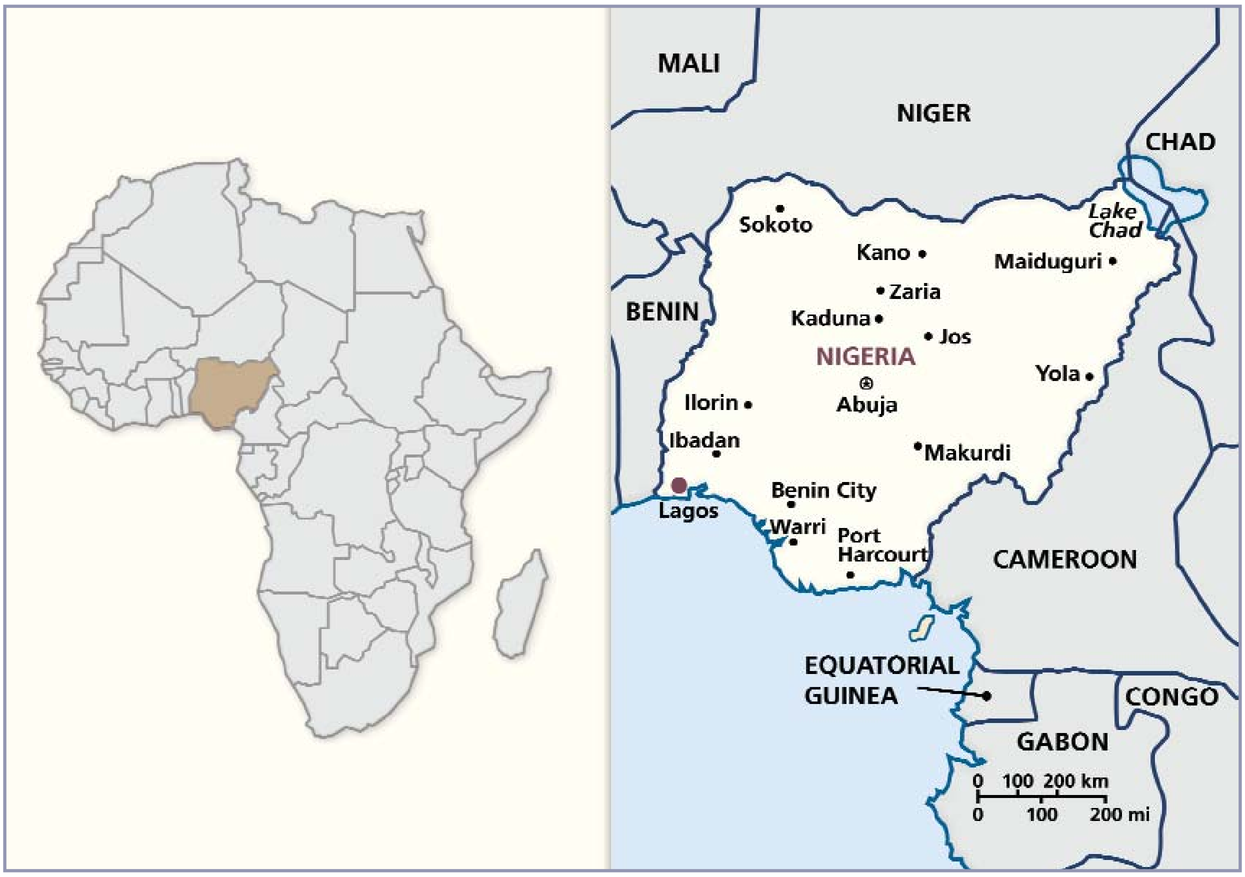
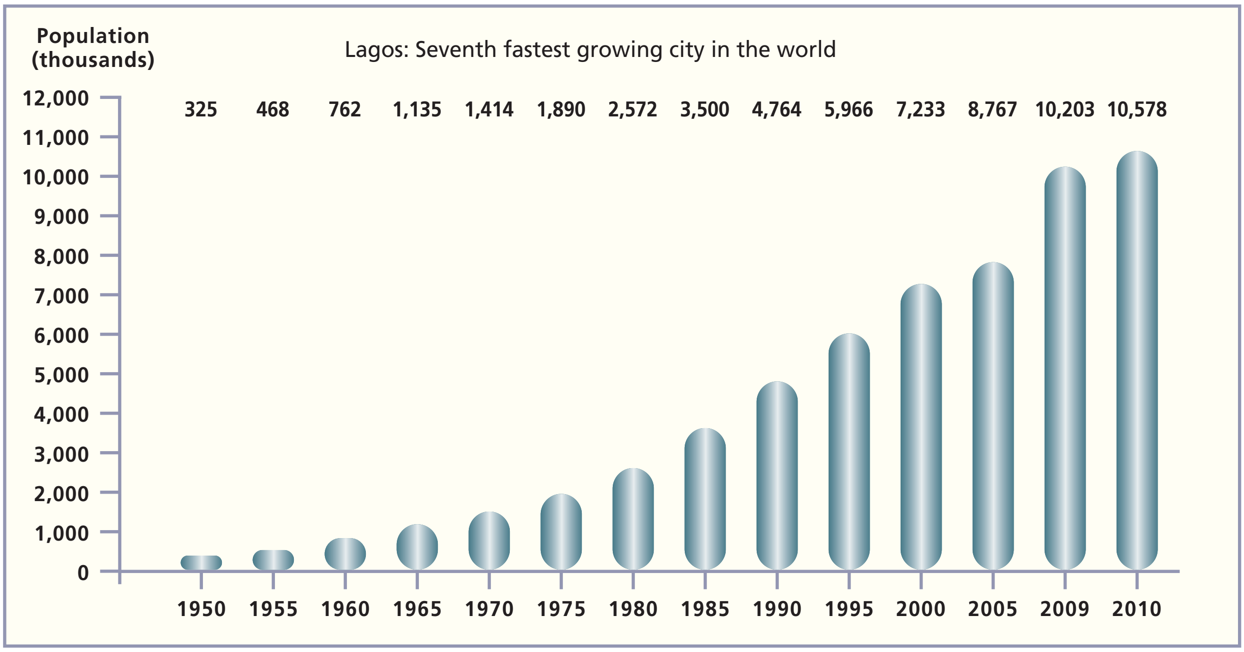


Chart 2. Population Growth in Lagos



Source: http://esa.un.org/wup2009/unup/p2k0data.asp

colony with Lagos as its capital, and it remained the capital through Nigeria's independence in 1960 up to 1991 when Abuja was made the capital. Despite its loss of political status, Lagos has continued to develop and grow.

The city abuts the Atlantic Ocean in an area of swamps, islands, rivers and an expanding region of the mainland. Lagos Harbor, the foundation of the modern city, is situated in the main water channel that drains into the Atlantic Ocean. As Lagos has grown it has incorporated smaller towns and settlements. The city grew steadily during the colonial period and expanded markedly after independence. From the 1970s it has experienced a population explosion fuelled by the oil boom, rapid economic growth and rural migration, as Chart 2 shows. Lagos is today the seventh fastest growing city in the world and projections are that its rapid growth will continue.

At 18,000 people per square kilometer, Lagos has the fourth highest population density in the world. Based on the Global Livability Report's assessments of stability, health care, culture, environment, education and infrastructure, Lagos is ranked the fourth least appealing to live in of the 140 cities in the survey.[6] It ranks 137th of 183 countries in ease of doing business, down three places since 2010.[7] Even in Nigeria itself, it is not the easiest place to do business — Lagos ranks 25th out of 37 regions in the country.[8] The fact is that urbanization has occurred haphazardly in Lagos. Little coherent urban planning has occurred for decades, and the city's tentacles extend outwards along its roadways. The prime reason for its haphazard development is that the city has no single municipality. Instead it is run by a number of Local Government Areas that share responsibility with the state government. From an administrative point of view, there is a lack of central authority, clearly a serious detriment in terms of governance.

A direct consequence is the absence of proper urban zoning, and attempts at introducing and enforcing zoning have been sporadic and inconsistent. Provision of basic infrastructure like sanitation and water is haphazard, land use regulation non-existent, and urban burials are not uncommon. Due to rapid population growth, most of the land of Lagos, including its slums, is relatively valuable because it is scarce and can always be rented.

In spite of having the best road infrastructure in West Africa, Lagos' road density per capita is very low. Only a few roads carry most of the traffic, these often flood when it rains, and many roads are in poor condition. No allowance is made for parking, even in the business districts. Road safety is negligible and Lagos has one of the highest accident rates in the world. Water transportation is underutilized, carrying less than 1% of Lagos' traffic, and Nigerian Railways operate only one train per day within the city.

The city faces the ongoing problem of supplying sufficient water for an ever-increasing population. Only half of Lagos' population receives potable water, but much of this is intermittent. Many inhabitants build wells and boreholes for their water needs and private water distribution is a thriving business. Lagos' power supply is notoriously inadequate and unpredictable due to intermittent gas supply, faulty infrastructure, lack of maintenance and corruption. In the past four years, the city has experienced a decrease in power supply, and those who can, utilize generators for their own electricity.

Lagos has no central sewage system and many dwellings resort to the use of septic tanks. The city has a little over half the treatment plant capacity it needs, and trucks empty surplus sewage into the adjacent lagoon. Life can be difficult even for the middle classes in Lagos. As one commentator observed, they are "resigned to doing everything for themselves. There's little public transport, so you drive. The state schools aren't good, so you aspire to send your children to a private school. There are few landlines, so you have mobile phones. There is almost no central water supply, so you dig your own well. There are no sewers, so you have a septic tank. Mains electricity works only a few hours a day, so you have your own generator. No money? Work harder, pray harder, get better cronies."[9]

These unavoidable facts certainly dominate any assessment of Lagos. So what is the upside? Much of Nigeria's wealth is concentrated in Lagos. It is the country's most prosperous city and the centre of its economic activity. Its $30bn economy is roughly the size of Kenya's. While there is massive poverty in the city there is also a huge spread of affluence. Lagos attracts the best skills from Nigeria and West Africa. Many professionals who had emigrated returned to Lagos after the global financial crisis in 2008/09 with their international experience and scarce skills. While corruption remains a problem, wholesale looting by politicians is a thing of the past.

Quality of life is also relative. In spite of the litany of woes mentioned above, Lagos nevertheless offers a higher standard of living than other cities in the region and the best opportunities for success. A variety of industries are thriving in Lagos' urban economy. Lagos has a thriving commercial music industry and is the home of Nigerian hip-hop, highlife, juju, fuji and Afrobeat. It is the centre of 'Nollywood,' the name given to the Nigerian movie industry, which produces more movies than the USA and fewer only than India. Nollywood is the second-largest employer in Nigeria after the oil industry. Most of its low budget films are shot in Lagos and move directly to market throughout Africa. Lagos has one of the most vibrant media scenes in Africa with multiple print media, state-run and private radio and TV stations. Despite a number of restrictive media regulations, the press is relatively free. Twenty-nine percent of Nigerians use the internet, and within Lagos the percentage is higher. Bandwidth increased fivefold in 2010 with a new undersea fiber-optic cable. While mobile phone usage far outstrips fixed line, the increase in demand for internet services and broadband capabilities support the fixed-line sector, which still has a market penetration of less than 5%.

Affluent Nigerians spend $1.2 billion on luxury goods in Dubai every year, and Lagos State is intent on creating an alternative retail industry in Lagos. Retail opportunities have increased with more outlets and accessibility to greater numbers of people. Lagos has numerous higher-end retail outlets such as the Palms Shopping Mall with 20,000 square meters of retail space, 69 stores, a cinema complex and parking for a thousand cars that was originally developed as an Actis Capital/Tayo Amusan joint venture.

Lagos is also the end point of major trans-African roads to Algiers, Benin and further on to Dakar. The Port of Lagos is one of the busiest in Africa, with three sections that include a container terminal and a rail-head. The port is a major point for the export of petroleum products. More than five million airline passengers, half of all Nigeria's, pass through Murtala

Mohammed International Airport every year. The airport has recently been expanded with the addition of a terminal, and a new cargo complex is to be added.

Lagos' strategic location has attracted foreign investment in recent years. For example, the Leki Free Zone, a multi-billion dollar free trade zone is being developed with Chinese investment on the edge of Lagos in order to develop a local manufacturing base. Complete basic infrastructure including water, power and roads will be provided. A joint Nigerian-Chinese project will see one of three new oil refineries built in the city. Together, these should supply Nigeria's refined oil needs (currently Nigeria is a net importer of refined petrol products).

There has been steady progress in infrastructure development in the past five years. A Bus Rapid Transit scheme was launched in 2006 and its first phase completed in 2008. *Okada* motorbike taxis have been banned from central roads in an attempt to reduce traffic injuries and congestion. Lagos is working with private companies to develop new toll roads in addition to those that already exist. A railway line running through Lagos is being constructed with planned completion in 2012. Ferry transport has been regulated and new waterway routes with regular services are planned.

The supply of potable water should reach 70% of the population in the next decade with the improved supply of electricity to pumping stations and projects like the recently commissioned Independent Power Project. Plans are in place to supply a minimum of 16 hours per day of continuous supply 'soon' by restructuring the national grid and increasing power supply with projects such as the construction of an independent power plant in partnership with the Singapore Power Company. Besides the municipal waste authority, there are 211 small and four large private waste disposal operators who in combination dispose of more than two million metric tons of waste per year. The city has just developed the capacity to dispose of medical waste. A high profile and ambitious project is Eko Atlantic City, an urban development on land reclaimed from the Atlantic Ocean. The development will return a section of the Lagos coast to its position in the 1950s and 1960s, reversing the damage of erosion. Most of the land has been reclaimed, and when complete the development will have 400,000 residents and 250,000 daily commuters.

These developments will not, even if they are successfully implemented as planned, supply the needs of the whole population of Lagos, but they will certainly improve the current situation. It is also encouraging to see that many of these projects are developed by the private sector, including foreign investors, or in public-private partnerships, which is a very positive break from patterns of the past. Compared to Stockholm or Tokyo, conditions in Lagos will certainly be considered dire for the foreseeable future, but if one considers the city's prospects, it is easy to recognize the upside. Lagos is beginning to exhibit the positive characteristics of economies of scale and economies of scope, especially in creative industries and services— hallmarks of a successful city. By most standards Lagos is West Africa's dominant city, and some believe that it will become the continent's dominant city within the next decade. Rem Koolhaas, an architect and urbanist, believes that Lagos' chaos is the reason why it thrives and grows. Its inhabitants have learned to convert some of its disadvantages to advantages.[10]

Maputo

The region in which Maputo is now situated was originally occupied by the Shangaan people. Vasco da Gama explored the area in 1498, and it was colonized by Portugal in 1505. Lourenço Marques was created by Portugal as a minor fortress settlement, which it remained until 1850. In that year it was developed as a port, primarily as a conduit for the neighboring Transvaal Republic's trade, and in 1898 it was declared the capital of Mozambique. The city was renamed Maputo following Mozambique's independence in 1975. Two years after independence, Mozambique suffered a civil war that lasted until 1992, resulting in economic collapse. Between 1987 and 1990 Mozambique changed from a command economy to a free market with one of the fastest growing economies in the world, albeit off a very low base. Maputo is a cultural melting pot. Indigenous African culture dominates with strong Portuguese and South African influences, and Chinese, Arab and Indian cultural influences are also evident. It is a diverse metropolis, a tourist destination, and is independently administered as a province. Maputo is a short distance from Swaziland and South Africa, and is an important harbor that serves both countries.

Modern day Maputo has been clearly molded by its recent history. Following independence in 1975, large-scale emigration drained the city of its professionals, businesspeople and administrators. The colonial structure of its society, the 1977-92 civil war and the economic policies that followed independence made Maputo one of the world's poorest cities. In the early 1990s for example, it was impossible for a family to survive on the income of a single formal sector job and it was common that middle-income households produced their own food to supplement what they could buy. Mozambique is still classified by the United Nations as a 'least developed' country.

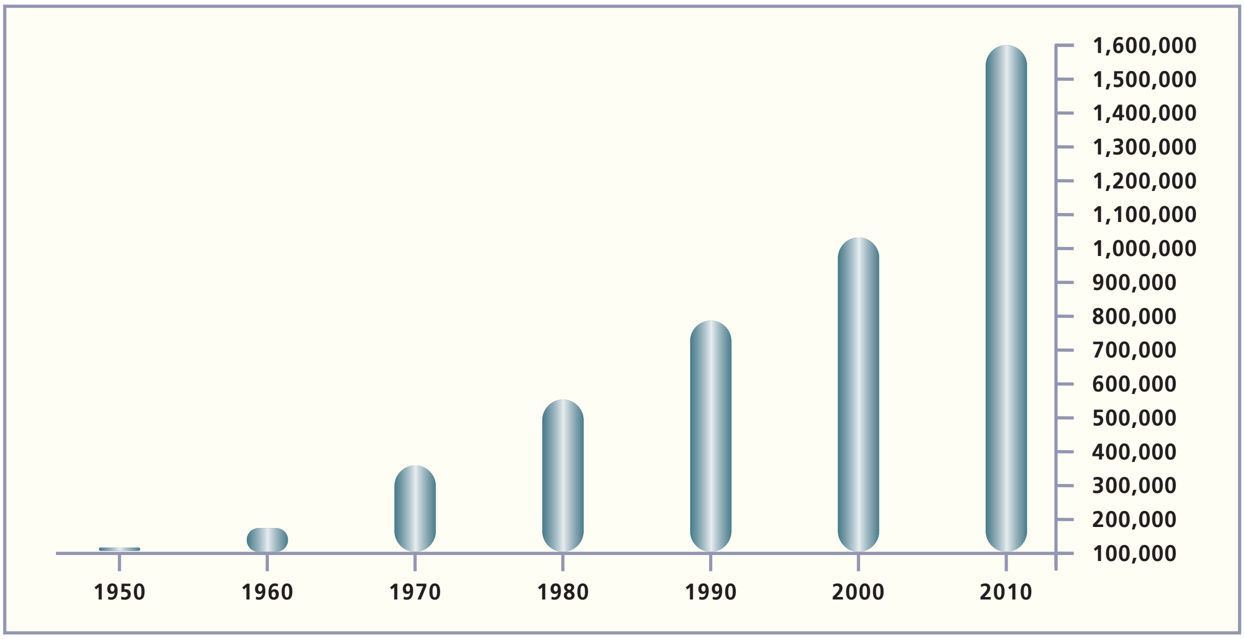
Social, economic and political conditions in Mozambique have resulted in high rates of urbanization. As mentioned in the introductory section, Mozambique has the highest urbanization growth rate among the nine key Sub-Saharan African markets reviewed — estimated at 2.2% a year. Maputo's population, which is currently estimated at over 1.6 million as seen in Chart 4, continues to grow rapidly.

With market reform and liberalization, the economy has been improving. In 2010, Mozambique's GDP grew by 8.3%, the 11th highest growth rate internationally, and industrial production growth was around 8%, the 36th highest in the world (CIA 2011). Growth over the past decade has been over 8%, and current growth projections remain higher than the 4-5% forecast by the World Bank for southern Africa as a whole.

For the city of Maputo, the harbor, industry production, and tourism are its economic foundations. Existing industries in the city include food, beverages, chemicals, petroleum products, textiles, cement, glass, asbestos and tobacco. But Maputo also benefits significantly from activity in the rest of the Mozambican

Chart 3. Maputo

Chart 4. Maputo: Rapid Population Growth



Source: UN data

economy. Foreign investment in Mozambique has had a profound impact on the city, directly and indirectly. BHP Billiton operates the Mozal aluminum smelter 17km from Maputo. Further afield there is significant foreign interest in titanium extraction, processing, and coal mining. Brazilian miner Vale opened a $1.7 billion coal mine in May 2011, the largest investment in Mozambique to date, with the expectation that it will double its investment over the next four years. Australia's Riverside and India's Tata Steel and Kindal Steel and Power are also developing coal mines in the country.

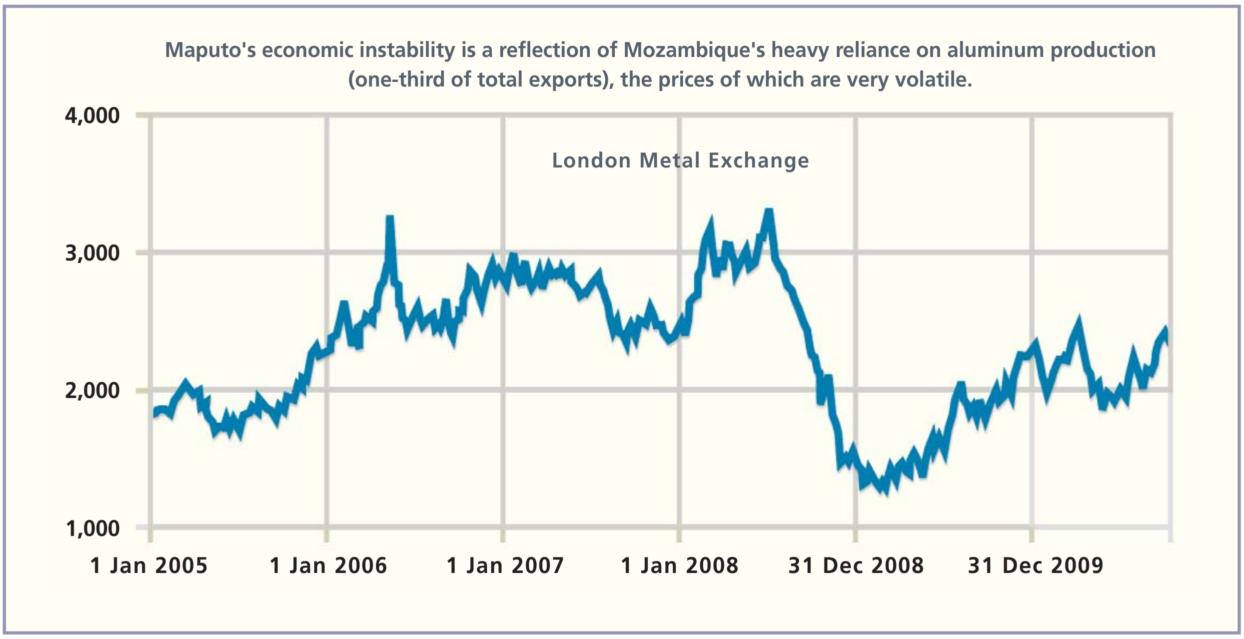
With some delays, inland railways are being rehabilitated and port infrastructure is being developed to get the coal to market. Other significant investment projects by foreign investors include the reconstruction of an inland international airport, establishment of an HIV drug factory and exploration into the viability of fuel production. Although not all these projects are in Maputo, their economic effects on the economy have important spinoffs for the city as it remains the major business, political and transit hub of the country.

In sharp contrast to Lagos, Maputo's electricity supply is secure, but not evenly distributed among its inhabitants. Mozambique produces far more electricity than it needs at the Cahora Bassa hydroelectric facility, but this is largely exported to South Africa. The demand for more power exists for new projects in garment manufacturing, titanium extraction and processing, and Chinese, Australian and Brazilian interests are planning to develop new power plants downstream from Cahora Bassa.

Maputo's infrastructure has undergone development and rehabilitation in a number of areas including public transport and water supply, which has increased the number of inhabitants with access to fresh water from 700,000 to 1.5 million. Media are relatively free and internet usage is growing. From 350,000 internet users in 2008 the number grew to 612,000 by 2010, and most of these were in Maputo (Internet World Stats 2011). While there has been stagnation in fixed line telephony, there has been rapid growth in the mobile phone industry — 36% of Mozambicans use cell phones and there are 6.5 million subscribers.

Maputo has a high incidence of disease. Malaria affects 11% of the city's population. HIV/AIDS is a major problem, with a higher prevalence in the city than the rest of the country. HIV/AIDS accounts for a shocking 39% of deaths in Maputo, even though UNAIDS has noted a drop off in new HIV infections throughout the region in 2010. Maputo reflects the country's situation overall in incidence of infectious diseases. Tuberculosis is a national emergency, as is cholera, with Mozambique

Chart 5. Maputo's Economic Instability



Source: London Metal Exchange

accounting for a third of notified cholera cases in Africa over the past decade. Life expectancy is 48 years and the death rate per 1000 is the 5th highest in the world. In Mozambique, Maputo is most at risk for the rapid spread of disease because of its population density.

Unemployment in Maputo is high at around 20%, and more than half the city's population lives below the poverty line. Unfortunately, extreme income inequality exists and is growing, and patronage, corruption, organized and violent crime are on the increase in Maputo. Car hijackings, rape and armed robbery occur, and mugging, bag snatching and pick-pocketing are increasingly common.

The city is also highly susceptible to extreme weather and climactic conditions, including rising sea levels, storms and cyclones. A rise in sea level will have a significant impact on the harbor and eastern residential areas. The government has undertaken a number of steps to protect the city from the sea following the devastating floods of 2000. It has built embankments and water channels, but more extensive measures are required to adequately protect the city from sustained, extreme weather events.

With its extreme poverty and increasing income disparity, the threat of social instability in Maputo remains relatively high. In 2008 and 2010 soaring food, transport, water and electricity costs sparked riots. Maputo's 2010 riots coincided with the government's announcement that it was ending it unsustainable subsidy of fuel, bread and rice, but these were reintroduced in the face of the violence. The subsidies were phased out in mid-2011 and replaced by a more targeted system that is aimed specifically at the urban poor, and includes subsidies for transport and a wider range of food than before.

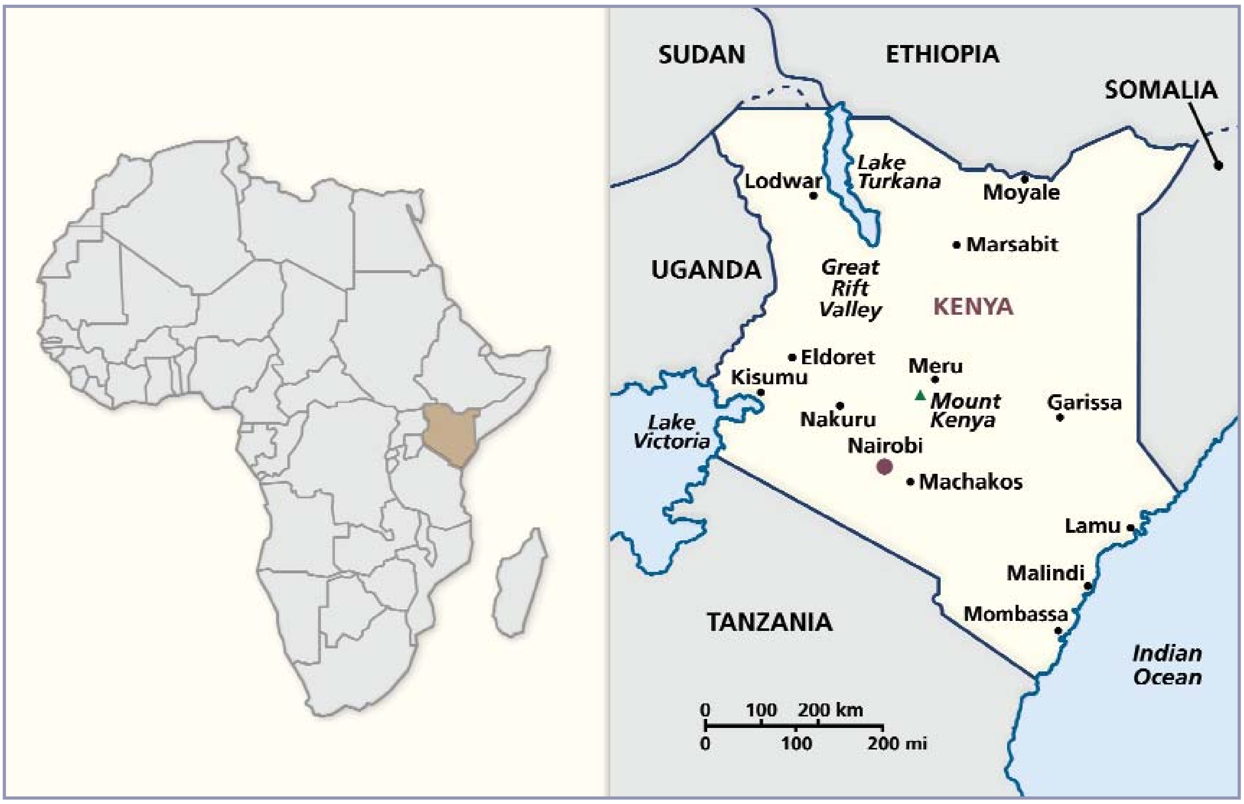
The harsh economic conditions evident in Maputo are a reflection of the situation of the country as a whole. In spite of increasing GDP growth rates, the country, and Maputo in particular, are still struggling with the creation of enough jobs to meet the rapidly expanding labor force. And for Maputo, the challenge is to create enough new urban jobs to meet the demand of the increasing number of rural-urban migrants each year. The situation is made more difficult due to the economy's over-dependence on aluminum production and exports. As Chart 5 shows, the world price of aluminum tends to be very volatile even in good times, and remains suppressed in the post-2008/09 crisis period. This has in turn made the challenge of job creation more difficult.

Maputo's development has clearly been handicapped by the massive social and economic dislocation as a result of the civil war and its aftermath. The challenge today is that it is experiencing one of the fastest urbanization rates in Sub-Saharan Africa, with its employment growth clearly lagging behind its population growth (organic growth plus rural-urban in-migration). While high urban unemployment poses the risk of political instability, there is as yet no real evidence of the kind of innovative energy that is seen in Lagos that results from the agglomeration effects of concentrated human interactions and exchanges in large urban areas. In spite of its fast growth, Maputo's population, at around 1.6 million, is after all much smaller than Lagos' over 10 million. Recent increases in foreign investment in the resource sector offers only a partial solution at best, as production in this sector is typically very capital intensive but weak in job creation. For the time being, there appears less reason for optimism for Maputo there is for Lagos.

Nairobi

Of the three cities, Nairobi is the youngest, not having had a settled population for most of the 1800s. The area was sparsely populated by the Kikuyu and occasionally traversed by the Maasai until the British chose it as a railway camp when building the Uganda Railroad in the 1890's. It was the midpoint between Mombasa and Lake Victoria, and was selected because of its highland location, temperate weather, good access to water and productive farmland. By 1907 Nairobi had become a commercial centre, and it replaced Mombasa as the capital of what was then known as British East Africa. The city expanded, supported by the growth of its administrative functions and tourism, which initially began in the form of big game hunting. A significant Indian community, originally brought to Kenya to work on the railways, settled in Nairobi. The ability of the indigenous population to live off the surrounding land was curtailed with the development of farms owned by white settlers, and a rural exodus to Nairobi ensued.

Chart 6. Nairobi



Nairobi developed as a racially segregated colonial town with specific areas allocated to Europeans, Indians and Africans. The European areas enjoyed good infrastructure, but for the other groups infrastructure varied from fair to non-existent. What is now the Kibera informal settlement, for example, was allocated to demobilized African soldiers returning from the Second World War who expected, but never received, land tenure. People streaming in from the surrounding countryside rapidly occupied the informal settlement. The legacy of this is that segregated infrastructure remains. Parts of Nairobi today are affluent with good infrastructure while the less affluent areas have poor infrastructure.

By many standards Nairobi is the most important city in East Africa. It is the capital of the largest economy in the region, Kenya, and a centre of industry, education, tourism and diplomacy. It is the world headquarters of two UN agencies and the regional headquarters of others. It is the primary communication and financial hub in East and Central Africa. Leading domestic and international banks such as Kenya Commercial Bank, Barclays, Standard Chartered and Citibank operate out of Nairobi. International companies such as Goodyear, GE, Siemens, Coca-Cola, Citibank, Toyota and Google have regional headquarters and manufacturing plants in the city, and it is seen as an alternative to cities such as Johannesburg or Lagos for entry into the African market. Ease of doing business compares very favorably to Lagos and Maputo, ranking substantially better than the other two at 98th of 183 countries.[11]

Manufacturing accounts for only 14% of Kenya's GDP, but it is mostly concentrated around Nairobi. Other industries with a strong presence in the city include cement production, consumer goods and food processing, and small-scale manufacturing in the informal sector. Although inadequate for the demand, Nairobi has the best human resources and communications infrastructure in the region. The Nairobi Stock Exchange, established in 1920, has around 50 companies listed, and ranks 4th in Africa in terms of market capitalization.

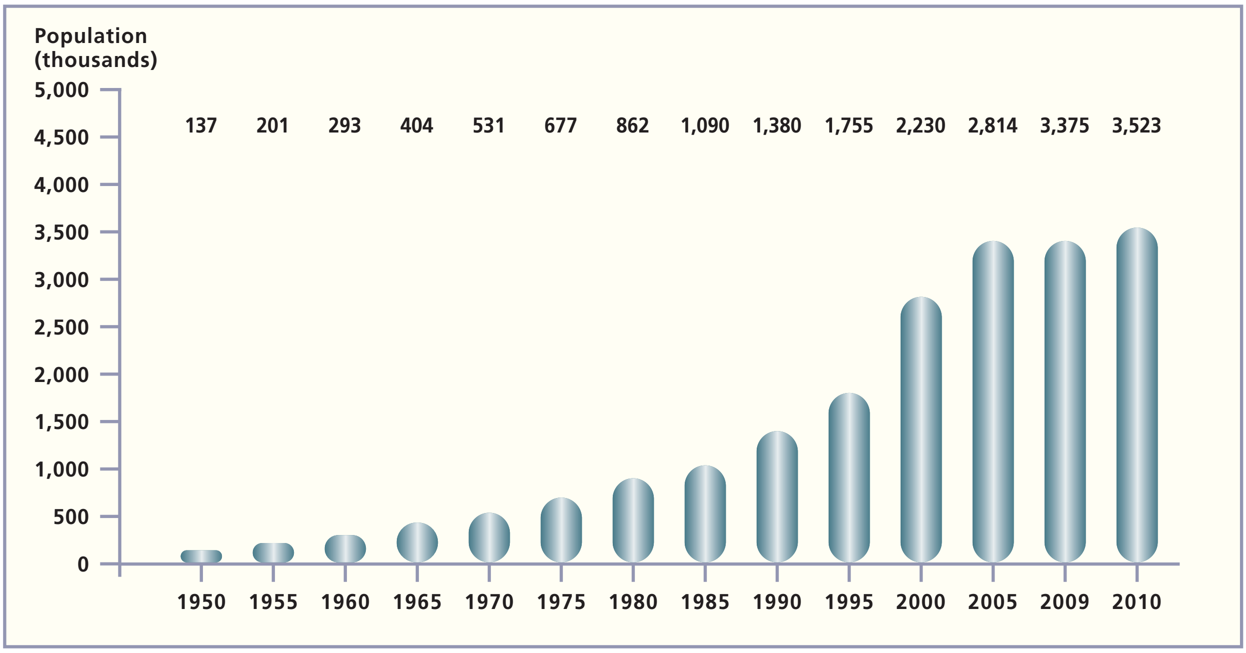
The areas around Nairobi are prime agricultural lands with food and cash crops such as maize, sorghum, cassava, beans, fruit and coffee. Horticulture is a developing agricultural sector and flower exports are an important source of foreign exchange. Tourism, and particularly wildlife tourism, has replaced coffee as the primary source of foreign exchange, and it contributes significantly to the local and national economies with well-developed infrastructure and resources. Jomo Kenyatta International Airport is a major point of entry into East Africa.

Nairobi has crowded markets and trading areas, with ample evidence of affluence in its middle-class suburbs, cinemas and restaurants. It also has vast, overcrowded tenements and slums, and high unemployment. Most of the land in Nairobi is public land, of which half is privately leased for 99-year periods. The city experienced a boom in top and middle level housing that peaked in 2007, and in this sector substantial gentrification is evident. Housing investment has a primarily local base, but is supported by the Kenyan diaspora and Somalis, Southern Sudanese, Rwandan and Congo nationals who see Nairobi as a safe investment.

Low-income housing has also grown but the financial burden for this has fallen on government. There is a massive shortfall of low income and informal housing upwards of 120,000 units per year, with the problem exacerbated by the inflow of refugees from Kenya's neighboring countries, particularly Somalia and Sudan. In the early 2000s Kenya was absorbing 400,000 Sudanese refugees per year, with many moving to Nairobi and avoiding the refugee camps. Half of Nairobi's population live in informal settlements, and Kibera, the largest of these, has over a million inhabitants. Despite government attempts to involve the private sector, and a number of innovative private sector projects such as Bora Capital's establishment of a low - cost property fund, the extent of public-private partnerships in the sector has not met expectations. In large part this is because of government's delay in introducing adequate regulation for real estate investment. Roughly 80% of Nairobi's population rent, and 20% own their dwellings.

The population density of the city is 3,080 people per sq km, but density is unevenly spread, ranging from 22,000 per square kilometer in Central to 2,100 per square kilometer in the Westlands suburb. Nairobi was characterized from the beginning by a severe

Chart 7. Population Growth in Nairobi



Source: http://esa.un.org/unpp/p2k0data.asp

skew in gender because migrants to the city were primarily men. In 1962, for example, there were 2.5 males to every female. This anomaly is no longer evident among the youth but is still evident among residents 35 years of age and older. Like Lagos and Maputo, Nairobi has experienced massive growth, which is expected to continue in the coming decades.

Administratively, Nairobi is a province made up entirely of its urban area, with the municipal district the responsibility of the Nairobi City Council, which provides the city's services. For decades these have been acknowledged to be inadequate. While the number of private cars has quadrupled over the past decade, the city's roads have until recently remained undeveloped, with more than half in poor or very poor condition. Water supply is adequate in meeting demand, but distribution is problematic. Less than half of Nairobi's households have satisfactory water connections and as much water is legally consumed as that lost through leakages and illegal connections. Sanitation in some form is accessible to most of the population, but water-borne sewage disposal suffers from poor maintenance, illegal use for irrigation and garbage disposal, and very low access in the city's informal settlements.

Nairobi is a major contributor to Kenya's economy. By 2006 it was generating 45% of GDP and employing 25% of working Kenyans, but the anomaly is that the city has been unable to meet the economic, social or service requirements of its population. Nairobi's facilities were developed for far fewer than the ever increasing numbers residing in the municipal area, and the city's technical and management capacity have rarely met the city's requirements, with its resource base low and revenue collection weak. A contributing factor is that regional authority lies with the national Minister for Local Government, and the council lacks the executive and financial authority to undertake many of the projects necessary for the city's development.

Poor infrastructure is therefore one of the greatest impediments to growth. Without significant improvement in infrastructure, by 2025, it is expected that Nairobi could face water stress, increased violence, and some forms of social, economic and environmental collapse.[12] In the face of these pressures government has responded. In 2008 the Nairobi Metropolitan Development Plan was produced with ambitious plans to expand the city limits, develop integrated mass transport, replace informal settlements with affordable low cost housing, enforce urban regulations, improve water and waste management, develop public utilities, and boost the infrastructure required to make Nairobi a regional capital for finance, information and communications technologies, health, education, business and tourism. A number of these plans have passed the talk stage, have budgets allocated, and the city is visibly undergoing physical change. Government investment has increased 20% compounded per year for a number of years on these and similar programs, at a rate that outstrips economic growth, even though the longer-term sustainability of this program is by no means assured.

Today, Nairobi's immediate future appears more promising than its recent past. Following government deregulation, the middle class has grown swiftly and continues to grow. Upward of 17% of Nairobi's population can be considered middle class, and they are a driving economic force in the city. Literacy in Nairobi is the highest in Kenya at roughly 93%. Free primary school education has been accessible to all since 2003, even though education is inadequately funded, and its quality relatively low.

There has also been a significant reduction in the level of absolute poverty in the city. The absolute poor— those who live below the threshold of being able to afford minimal standards of food, clothing, health and shelter— has decreased from 51% of the population in 1997 to 44% in 2006.[13] It is estimated that the percentage has fallen further since then. The figure in slum areas is higher, at about 73%, but even these areas hold some promise as a significant number of households in the slums operate an enterprise or have at least one member with some education— two conditions that show a negative correlation with continuing poverty in Nairobi. Interestingly, the group called "*jua kali*," Swahili for 'hot sun,' describes those that subsist as outdoor vendors and entrepreneurs in the informal sector but are officially listed as unemployed. Their numbers increased from 27% in the early 1990s to 38% in the latter 2000s— three and a half times the growth rate of employed wage-earners during the same time period.[14]

But the city still faces enormous challenges. It is an integral part of Kenya's low-income economy with annual per capita income averaging about $360, ranking 148th of the 177 countries in the UNDP's Human Development Index and 106th of the 139 countries in the WEF's 2010 Global Competitiveness Index. Although ameliorated by the growth of the middle class, Nairobi is one of the world's most economically unequal cities. The gap between the urban affluent and the rural poor is smaller than that between the urban affluent and the urban poor. If the current trend continues, in a decade Kenya's starkest poverty will be found in cities like Nairobi, and not in the remote rural areas.

The greatest differences in health status are also to be found between urban affluent and urban poor and no longer between urban affluent and the rural poor. Philippa Crosland Taylor of Oxfam GB observes that, "An increasingly disenfranchised and poverty-stricken urban underclass is set to be the country's defining crisis over the next decade. [Nairobi] is a city of a small minority of 'haves' and millions of 'have nothings'... Nairobi is one of the biggest and most prestigious cities in East Africa, yet it is crumbling before our eyes."[15] Among this 'urban underclass' there is resentment over patronage, inequality, poor economic prospects and harsh living conditions. From its earliest days Nairobi has been at the centre of Kenyan politics. During the Mau Mau insurrection in the 1950s the city was practically in a state of siege. More recently, events like the 1988 American embassy bombing and the riots of the 2007 presidential elections emphasize the symbolic importance of the city and its central position in Kenyan society and politics.

With a population size midway between Lagos and Maputo, Nairobi is distinctive in its better and improving infrastructure, and, more importantly, an apparently more responsive and capable administrative structure, with more effective project implementation. The economic, social and environmental challenges facing Nairobi are certainly no less intense than those facing Lagos and Maputo, but its record of policy response so far seems to be more successful.

Conclusion

Lagos, Maputo and Nairobi vividly illustrate the reality of many Sub-Saharan cities. While most of Africa's cities are defined by their large and rapidly growing populations, resource limitations and inability to meet the health, security, education, governance and skills requirements of all their inhabitants, this tale of three cities shows that important differences also exist between them. Africa's cities are in fact very different societies, and in many ways better societies, than they were a decade ago. How they perform in the coming years and decades will influence the future of the continent in many important ways. At present, Africa is benefiting from the resource-driven expansion of its economies and this is having a significant impact on its urban and rural communities. How to leverage this resource-based boom to benefit other sectors of the economy as well as the general population, including its urban development, will be the defining challenge of the region.

As this tale of three cities shows, there is unlikely to be a magic pill that can solve all the development difficulties of the region's cities, even though there is a great deal in common in terms of the challenges that they face. More specifically, there is not going to be some kind of a "China model" that Sub-Saharan Africa can copy to repeat China's urbanization experience. Successful solutions to the region's urbanization challenges will have to be crafted locally, one at a time, taking full account of local conditions that include location-specific constraints and capabilities. The origins of Africa's prosperity may well reside in its mines and oil wells, but its extent and sustainability will largely depend on the resourcefulness of its people and the dynamism of the enterprise that exists in its cities.

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1. See http://www.thelocal.de/national/2010022625525.html

2. Data published by the National Statistics Bureau, various years.

3. There is also a darker side to China's rapid urbanization, which are the social costs incurred. For example, forced land acquisition by local governments with inadequate compensation to rural people has been a chronic source of social unrest in recent years.

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Yuwa Hedrick-Wong is currently HSBC Visiting Professor of International Business at the University of British Columbia, Canada. Yuwa is an economist and business strategist with 25 years of experience gained in over thirty countries. He is a Canadian who grew up in Vancouver, British Columbia, and spent the last 20 years working in Europe, Africa, the Indian subcontinent, and Asia/Pacific. He has served as strategy advisor to over thirty leading multinational companies in the Asia/Pacific region.

In 2010, Yuwa was appointed as Global Economic Advisor to MasterCard Worldwide. Prior to this role, he was Economic Advisor to MasterCard in Asia/Pacific, a position he held since 2001. As economic advisor, he chairs a MasterCard Knowledge Panel of leading economists, policy analysts, academics and business strategists for regular exchange and knowledge sharing. His other appointments are: Advisor at Southern Capital Group, a private equity fund (since 2007); member of the Investment Council of ICICI, India's largest private bank (since 2008); Global Economist at The Insight Bureau (since 2009); and member of the Board of Advisors, Center for Macro Consumer Research, India (since 2010).

Yuwa is a frequent commentator in the broadcast and print media on current economic, policy and business issues, and is a published author in consumer market dynamics, economic development, trade, and international relations. He was voted "Communicator of the Year" in Asia in 2006 by the Asia/Pacific Association of Public Relations Professionals. He wrote a regular column in Forbes Asia called "Asian Angles" in 2005 and 2006. He was adjunct professor at the School of Management, Fudan University, Shanghai, China; from 2005 to 2008; and guest lecturer at the Graduate School of Business, University of Chicago.

Professor George Angelopulo

Professor George Angelopulo's area of interest is the relationship between corporate integration, communication and sustainable competitive advantage. He has published in peer-reviewed journals; produced standard academic works that are used throughout southern Africa; edited and authored a number of books; and produced academic papers for conferences in Africa, Europe, America and Australia, always retaining a focus on the corporate world. George has worked with organizations that include listed and unlisted companies, multinationals, NGOs, most of South Africa's government departments and a number of parastatals. He holds a particular interest in research methodology and has developed diagnostics for stakeholder perception analysis in marketing and communication that include the iBrand Barometer® and the Communication Prioritisation Index®. George has undertaken research in Finland, Germany, Great Britain, Italy, Namibia, the Netherlands, Norway, Peru, South Africa, the USA and Zimbabwe. He is a member of the MasterCard Africa Knowledge Panel, holds a DLitt et Phil (UJ) and holds academic positions at the Department of Communication Science at the University of South Africa (Unisa), and CENTRUM Católica, the business school of the Pontificia Católica del Perú. Prior to his academic career George worked in media and advertising in Africa.

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