



## RESEARCH REPORT

# ECONOMIC DEVELOPMENT IN URBAN NIGERIA

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## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	ii
ACRONYMS .....	iii
EXECUTIVE SUMMARY .....	1
INTRODUCTION .....	4
NIGERIA'S ECONOMY TODAY .....	6
KEY MACROECONOMIC TRENDS .....	6
NATIONAL INDUSTRIAL COMPOSITION AND PRODUCTIVITY .....	9
THE SPATIAL ECONOMY .....	17
DEVELOPMENT OF THE NIGERIAN SPATIAL ECONOMY: HISTORICAL CONTEXT .....	17
REGIONAL DISPARITIES: INCOME, POVERTY, INEQUALITY AND LITERACY ..	19
INFRASTRUCTURE NETWORKS .....	21
THE SPATIAL ECONOMY AND AGGLOMERATION .....	24
INDUSTRIAL LOCATION .....	33
ECONOMIC ORGANISATION AND PERFORMANCE .....	44
BUSINESS ENVIRONMENT, COMPETITIVENESS AND PRODUCTIVITY .....	44
CLUSTER DEVELOPMENT IN NIGERIA .....	47
THE POLICY AND INSTITUTIONAL ENVIRONMENT .....	52
NATIONAL ECONOMIC DEVELOPMENT POLICY AND PROGRAMMES .....	52
INDUSTRIAL POLICY .....	55
LOCAL AND REGIONAL ECONOMIC DEVELOPMENT INITIATIVES .....	57
FINDINGS AND RESEARCH AND POLICY IMPLICATIONS .....	63
BIBLIOGRAPHY .....	67
ANNEX 1 .....	72
ANNEX 2 .....	74

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## ACRONYMS

ACID	Africa Country Infrastructure Diagnostic
AfDB	African Development Bank
BECANS	Business Environment and Competitiveness across Nigerian States
CPS	Country Partnership Strategy
CSP	Country Strategy Paper
DFID	Department for International Development
DPU	Development Planning Unit
ECOWAS	Economic Community of West African States
EPZs	Export Processing Zones
GDP	gross domestic product
GIS	Geographic Information System
ICT	information and communications technology
ILO	International Labour Organisation
IMF	International Monetary Fund
ISI	import substitution industrialisation
LEEDS	Local Economic Empowerment and Development Strategies
LFS	Labour Force Survey
LGAs	Local Government Areas
LQ	location quotient
MDGs	Millennium Development Goals
NACCIMA	Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture
NBS	National Bureau of Statistics
NDP	National Development Plan
NEEDS	National Economic Empowerment and Development Strategy
NGO	non-governmental organisation
NUDP	National Urban Development Policy
PPP	public–private partnership
PRSP	Poverty Reduction Strategy Paper
SAP	structural adjustment programme
SEEDS	State Economic Empowerment and Development Strategies
TA	Transformation Agenda
UCL	University College London
UIREM	Urbanisation and Infrastructure Research and Evaluation Manager
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation

# EXECUTIVE SUMMARY

The research in this report aims to contribute to a better understanding of urban economic development in the cities and towns in Nigeria. It considers:

- The overall composition of the national, regional and local economies in the formal and informal sectors, and the broad emerging spatial patterns of agglomeration.
- Economic performance in the formal or informal manufacturing, or service sectors, and the contribution of urban infrastructures to productivity enhancement.
- Economic development policy and the institutional environment at the federal, state and local levels, and within national development programming.

Findings and policy implications at this point are provisional in nature.

They can be summarised as follows:

- Since the re-basing of Nigeria's GDP in 2014, it has become apparent that Nigerian industrial structure over the decades has experienced substantial re-balancing across sectors, and is thus more diversified as a result. About a third of 1990-2010 growth has come from ICT, Oil & Gas and Real Estate<sup>1</sup>, the three most productive sectors of the economy. These three sectors, while accounting for almost 35 percent of GDP in 2010 and 36 percent of 1990-2010 GDP growth, together employed a mere 1.5 percent of formal workers in 2010. This may partly explain why Nigeria's impressive growth over the last two decades has done little to reverse the trends of rising unemployment and poverty.
- The Manufacturing sector was the second smallest contributor to 1990-2010 GDP growth, accounting for just 5 percent. The sector has declined as a share of total GDP from more than 10 percent in 1990 to just 6 percent in 2010, and employed 11 percent of the workforce in 2010. The majority of Manufacturing output is composed of Food & Beverages. Unlike the Services sector and the economy as a whole, the Manufacturing sector failed to diversify since 1990. The lacklustre performance of this sector over the past two decades also partly explains why GDP growth did not translate into a reduction in unemployment and poverty.
- Nonetheless, Manufacturing has emerged as the single largest contributor to economic growth in 2013, contributing 22 percent to 2013 GDP growth. The majority of Manufacturing growth has been in

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<sup>1</sup> Throughout this report we have used capitalisation of sectors to differentiate when referring specifically to the National Accounts Framework definition of the sector from NBS, rather than referring to a sector in more general terms.

the Food & Beverages subsector, although other subsectors have also been growing. It is yet to be seen whether the recent growth in Manufacturing can be sustained, and whether it can become a significant contributor to employment growth.

- The informal economy is widespread, a little larger than the formal sector in terms of employment, and diverse. While limited case study evidence suggests it is often an extension of the formal economy, formal-informal linkages are poorly understood. Regions are the appropriate scale for analysing such linkages, and would be an appropriate extension of intra-regional cluster analysis. Such an understanding of the informal economy is an essential precursor to appropriate policy measures.

## The spatial economy

Analysis of the spatial economy demonstrates the existence of strong patterns of agglomeration across the country. The distribution of sectors across states can be used as an adequate proxy for city-level agglomeration:

- The analysis identified three main zones where economic activity is concentrated. The first is in the South West, centred around Lagos and the surrounding cities and the corridor to Ibadan. This zone is specialised in ICT, Professional & Scientific Services, Financial Services and Manufacturing. Urbanisation economies are evident in the high number of firms from all sectors located in the zone. The second zone is an industrial corridor running from Abuja to Kano in the north of the country, and including Kaduna and Jos. Kano is the second largest city and historically a manufacturing hub, while Abuja is an emerging industrial centre, with very little known about the nature of manufacturing in the city. The final zone is in the South East, primarily the cities of Port Harcourt, Onitsha and Aba. These latter three cities between them account for a significant percentage of manufacturing activity in the area.
- A key finding is the prevalence of manufacturing in the medium-sized cities (500,000 to 1 million). This is due primarily to the existence of establishments in the cities of Aba, Ilorin, Onitsha, Kaduna and Jos. Given the relatively small size of these cities, these may be manufacturing firms in the same or inter-related subsectors, driven by localisation economies.
- The analysis thus identifies large agglomerations and major centres of industrial concentrations across states and cities, as well as makes a start in identifying and analysing clusters of interrelated firms at the intra-regional scale. There is need to develop further understanding of sectoral dynamics in terms of firms' activities within global, regional and local value chains (including local inter-firm linkages), their final markets (local, national, regional or international) and their industrial organisation (the role of business associations, unions and systems of learning and upgrading).

## Economic organisation and performance

- The aspects of the business climate hampering the development of the manufacturing sector are well-researched and widely recognised (notably the role of infrastructure provision and services), but what is less well understood are the institutional weaknesses, within both both political and civic/business spheres, that impede addressing these obstacles.
- Nigeria's recent economic policy has favoured the development of clusters and use of special economic zones (SEZs) to drive growth in several key sectors and their value chains. However, a number of factors must come together simultaneously to make a successful SEZ, including location, policy, strategy and planning, the legal and regulatory framework, customs, administrative capacity, management, as well as political will and long-term commitment. To date, political economy problems have largely undermined the success of SEZs in Nigeria by distorting one or more of these factors.

## Urban economic development

- Economic development policy interventions are often not guided by clear spatial considerations and there is generally little focus on urban and local/intra-urban economies, which are at times also not well understood or characterised (including the informal sector component and formal-informal linkages). While there is ongoing interest in how best to promote urban economies, local economic development is not a widely-held objective of policy and programming. Nigerian cities and towns need an integrated approach to local economic development that recognises and responds to the specific needs of its industrial clusters (characterised by localisation economies), as well as of the broader urban agglomerations within which they are embedded.
- In the absence of city-level governments, local economic policies and programmes often require formulation and implementation through state governments. It is therefore crucial that the policy environment (and intergovernmental relations) at the national, state and local levels are well understood.
- It is widely recognised that better economic opportunities are required to reduce poverty in Nigeria. Research that provides a better understanding of the conditions of urban poverty also has implications for economic policy and development. The available evidence reinforces the argument that urban economic growth is an important contributing factor for poverty reduction in Nigeria – but more and better research is needed.

# INTRODUCTION

Nigeria has seen remarkable economic growth in recent years, linked to a potentially transformative urbanisation process, and based on large-scale demographic and social change. The key issue of why high rates of economic growth in recent years have not been translated in urban settings into real improvements in economic opportunity – employment creation, livelihood provision and poverty reduction – is, however, as yet largely unaddressed, as is the contribution of infrastructural investments and improvements to urban productivity.

Moreover, there is a limited understanding, at overall or sectoral level, of the country's current economic geography (and specifically industrial location), and of sector-level organisation and performance (formal or informal, whether manufacturing or service) in Nigeria's urban/metropolitan regions, cities or towns.

The research in this report aims to contribute to better knowledge about the urban economic growth and performance of cities and towns in Nigeria and considers:

- The overall composition of the national, regional and local economies in the formal and informal sectors, and the broad emerging spatial patterns of agglomeration.
- Economic performance in the formal and informal manufacturing and service sectors, and the contribution of urban infrastructures to productivity enhancement.
- The economic development policy and the institutional environment at the federal, state and local levels, and within national development policy and programming.

The methodological approach to the research involved both primary and secondary data analysis.

Box 1 on the next page gives a detailed description of the methods used for the analysis of the industrial composition of Nigeria's spatial economy, with focus on leading metropolitan regions.

The analysis is subject to data gaps and limitations. Important caveats are incorporated in the discussion and should be taken into account.

The report serves as a detailed 'baseline' report for the urban economic growth theme of the Urbanisation Research Nigeria (URN) programme – and as a foundation for the later, targeted and more detailed research in the years to 2017.

The report is designed to be read and discussed by academic and policy making constituencies alike. Research findings will be presented to relevant Nigerian stakeholders and policy makers to create a platform for exchange, to obtain critical feedback to inform the research process, and ensure that the outputs are policy relevant.

### **Box 1: Analysis of spatial data for industry**

Spatial data on industry in Nigeria is available at the state level from the National Bureau of Statistics (NBS). To corroborate the NBS findings, bottom-up cluster analysis was also conducted by analysing the location of firms in the Nigerian Association of Chambers of Commerce of Commerce, Industry, Mines and Agriculture (NACCIMA) business directory.

The spatial scale of analysis encompasses each state's metropolitan region as well as numerous smaller cities, towns and villages, and swathes of rural areas. With the exception of Agriculture and Mining & Quarrying, the distribution of sectors across states (in the absence of city or metropolitan-level data) must serve as a proxy for the distribution of industries across cities. This is feasible given the fact that each state typically has just one large metropolitan region. In order to use state data as a proxy for the industrial composition of the leading metropolitan regions, employment data is analysed as follows:

- Each sector is analysed by its employment size, that is total employment for the sector and its corresponding share of national sector employment – a measure of states' absolute specialisation in broad sectors and subsectors.
- Each state industry is also analysed by its share of state employment and its Location Quotient (LQ)<sup>2</sup> – a measure of states' relative specialisation in broad sectors and subsectors.

The two levels of analysis, absolute and relative specialisation, capture two important and different aspects of a regional economy. The sheer size of an agglomeration reflects advantages from scale. These advantages are the positive agglomeration economies that emerge from the degree of matching (firms find workers and people find jobs with greater ease), sharing (input-output linkages and sharing the costs of infrastructure) and learning (from the interacting of people in related fields) that accrue when a large number of workers and firms are spatially concentrated.<sup>3</sup>

The second level of analysis, relative specialisation, is the degree of sector employment in a region versus its overall share of national employment. Note that while in many cases the employment size and LQ of a sector will both be comparable, they may also be very different. A relatively small region can have a relatively small sector whose share of regional employment is high. Such high levels of relative specialisation might not have the same extent of agglomeration economies as a much larger industrial agglomeration, but such regions' high levels of relative specialisation could indicate the seeds of growth in that sector.

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<sup>2</sup> A location quotient is the industry share of state employment divided by the National industry employment share of total national employment. For example, an LQ=2 means that there is twice the proportion of that sector's employees in the State than the National economy. Absolute and relative specialisation measures are calculated excluding employment in Agriculture and Mining & Quarrying.

<sup>3</sup> A good proxy for the spatial boundary of what constitutes a spatial agglomeration is whether workers can get to work anywhere in the region and back home in the same day, and whether firms can interact in one day without having to catch a plane.

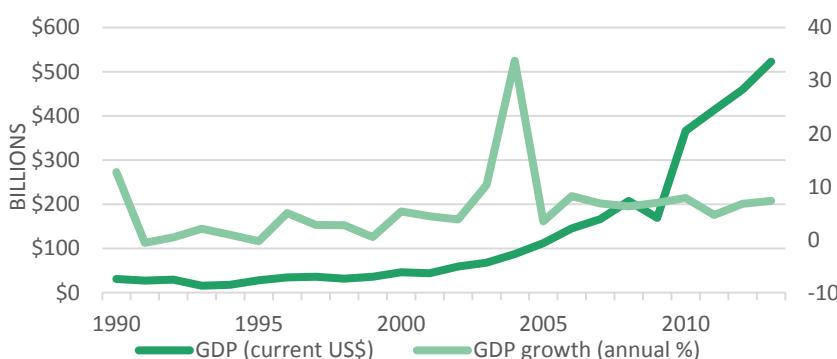
# NIGERIA'S ECONOMY TODAY

The section provides an overview of the key trends emerging within the Nigerian economy which underpin the main analyses of the report.

## KEY MACROECONOMIC TRENDS

Nigeria recently became the largest economy in Africa, overtaking South Africa, which has roughly a third of Nigeria's estimated 170 million people and a far slower economic growth rate. The country's economic output is outpacing population growth. GDP increased from \$31 billion in 1990 to \$522 billion in 2013 (averaging an annual growth rate of 5.9 percent), whilst the population increased from 96 million to 170 million during the same period (averaging an annual growth rate of 2.6 percent) (World Bank, 2014a).

**Figure 1 Rebased GDP and GDP growth rates, Nigeria, 1990-2013**



*Source: World Development Indicators, Online Database, 2014. The CC license does not apply to this figure.*

GDP per capita has increased from just \$321 in 1990 to \$3,010 in 2013, the second highest in the Economic Community of West African States (ECOWAS) region after Cape Verde – and almost three times more than the average for the region of \$1,115. Nigeria in fact accounts for 77 percent of the total GDP of ECOWAS.

It also accounts for 53 percent of the total population and 59 percent of the urban population. Just over half (51 percent) of the country's population now live in urban settlements, a similar percentage as Ghana and Cote d'Ivoire, the two next largest economies in the region, and higher than the regional average of 44 percent.

Nigeria has become increasingly integrated into the regional and global economy in recent years, as evidenced by increasing levels of foreign direct investment (FDI) inflows and trade. FDI inflows have increased more than fivefold from \$1 billion in 1990 to \$5,6 billion in 2013, averaging over \$7,2 billion over the last five years with a peak of \$8,9 billion in 2011 (UNCTAD, 2014).

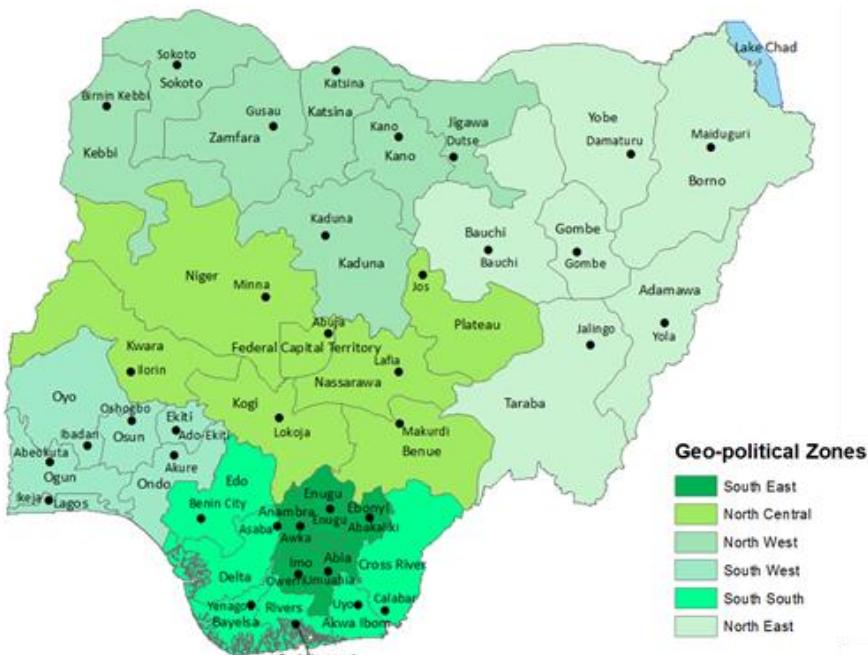
Although the oil and gas industry still accounts for the bulk of these inflows, a noticeable shift has begun over the past decade. From 2009 to 2013, the services sector received an estimated 51 percent of FDI inflows, up from 12 percent between 2004 and 2008 (Leke et al., 2014). Nigeria is the top destination for investment in Africa and accounted for 43 percent of all FDI inflows to ECOWAS in 2013.

The total value of trade has also increased eightfold since 1990 to \$170 billion in 2013, although it has decreased as a percentage of GDP trade in recent years, from a peak of 82 percent in 2001 to just over 36 percent in 2013 (UNCTAD, 2014).

Despite the remarkable economic growth in recent years poverty remains prevalent in much of the country. The absolute number of Nigerians living in poverty has not decreased and remains at 58 million. The per capita national poverty rate based on the official poverty line has been reduced but more than half of the population is still considered vulnerable to economic shocks and other crises, such as unemployment, illness, natural disasters, or conflict (World Bank, 2014a). Inequality, as measured by the Gini index,<sup>4</sup> has also increased and is the highest in the West Africa region.

Recent poverty data from the NBS and the World Bank show some progress in poverty reduction in all southern geo-political regions (South West, South East, and South South) and the North Central geo-political zone. The North West has witnessed little change, while the North East is experiencing an increase in the poverty rate. Urban areas in particular appear to have experienced measurable progress in poverty reduction (World Bank, 2014a).

**Figure 2 A map of Nigeria showing geo-political zones, states and their capitals**



Source: Own elaboration.

<sup>4</sup> The Gini index is a measure of the inequality of income or consumption expenditure among individuals or households within an economy.

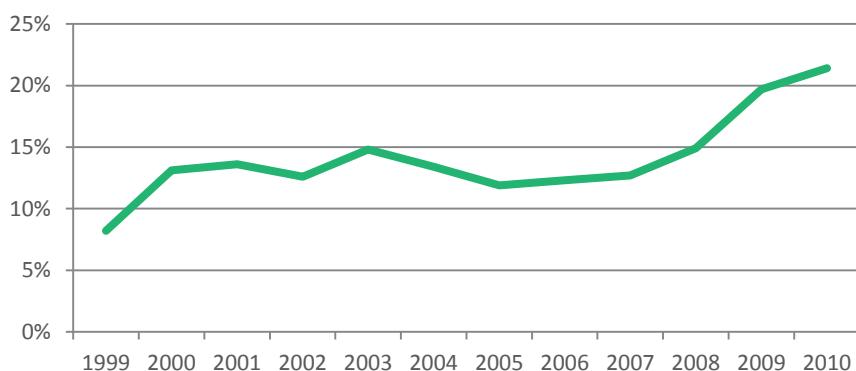
However, this is not to say that poverty is not a real problem in urban Nigeria. Evidence from other developing countries shows that the proportion of the urban population ‘living in poverty’ is usually much higher than the proportion defined as poor in official statistics based on poverty lines (Satterthwaite, 2014). Measurements do not take into account other costs, such as housing and other basic services, such as electricity and water, transport, health and education, which are all particularly high in urban areas.

Due to rapid population growth, Nigeria needs to experience a strong reduction in the poverty rate in order to reduce the absolute number of poor people. Poverty trends also suggest that the increase in inequality could have offset the poverty-reducing benefits from economic growth in recent years (World Bank, 2014a).

NBS data shows unemployment rising from 8.2 percent in 1999 to 21.4 percent in 2010, as illustrated in Figure 3 below. The gender disaggregation of unemployment rates in 2010 show that unemployment is higher for women (24.9 percent) than for men (17.7 percent).

While the unemployment rate in Nigeria according to the International Labour Organization (ILO) definition is likely lower compared to the official unemployment estimate,<sup>5</sup> the extent of the problem is real, although it might best be interpreted as underemployment, particularly for those working in the informal sector, filling in various low productivity and low paying occupations (World Bank, 2014a).

**Figure 3 Unemployment in Nigeria, 1999-2010**

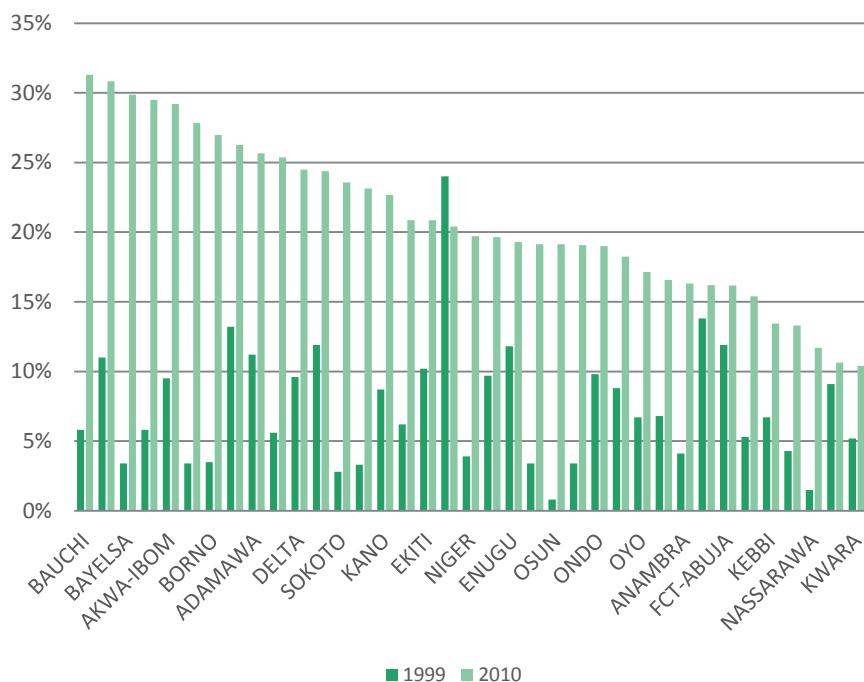


Source: Author's calculations using NBS data. The CC license does not apply to this figure.

Unemployment rates are uneven across States. The three States with the highest unemployment rate in 2010 were Bauchi (31 percent), Yobe (31 percent) and Bayelsa (30 percent), and the three States with the lowest unemployment rates were Kwara (10 percent), Plateau (11 percent) and Nassarawa (12 percent). The variance in State unemployment increased from 2 percent in 1999 to 3.3 percent in 2010. The State unemployment rankings have also changed significantly over the decade, as illustrated in Figure 4 below.

<sup>5</sup> The official definition of employment in Nigeria which is working for 40 hours or more in a week is unusual. The ILO defines employment as working for any amount of time in the course of a week.

**Figure 4 Unemployment rates by State, 1999-2010**



Source: Author's calculations using National Bureau of Statistics (NBS) and Labour Force Survey (LFS) data. The CC license does not apply to this figure.

## NATIONAL INDUSTRIAL COMPOSITION AND PRODUCTIVITY

Since the re-basing of Nigeria's GDP in 2014, it has become apparent that the Nigerian industrial structure over the decades has experienced substantial re-balancing across sectors of its economy, and is thus more diversified as a result.<sup>6</sup> All industrial sectors have shown tremendous growth and new sectors such as ICT, Real Estate and Professional, Scientific & Technical Services<sup>7</sup> have emerged since 1990 (Annex 1 provides the official NBS definitions of sectors).

<sup>6</sup> National composition of GDP by sector for 1990 and 2010 was extracted from the 2013 Statistical Bulletin provided by the NBS. For real inflation-adjusted analysis, the 2010 GDP figures were deflated to 1990 prices as per the historical Consumer Price Index figures provided within the World Bank Development Indicators online database.

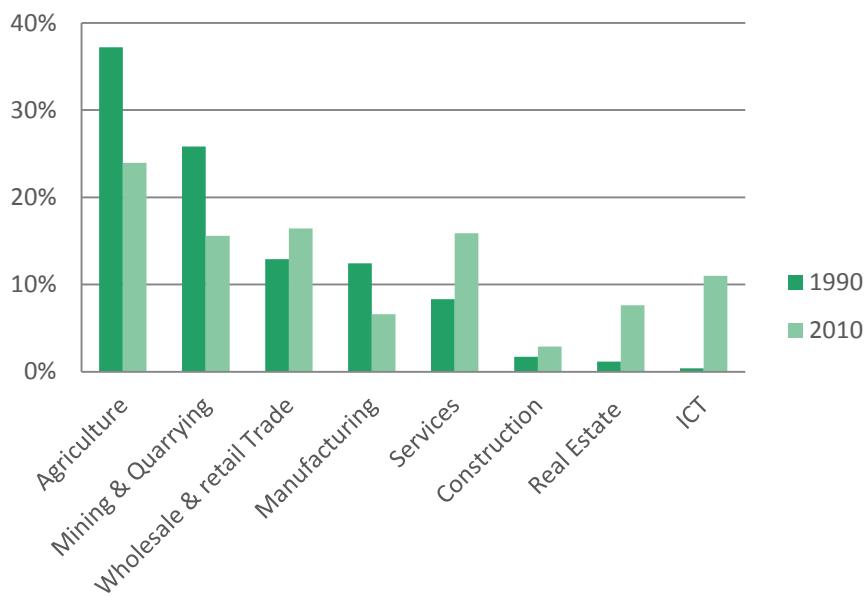
National and State employment by sector for 2010, as well as data on State-level informal employment, were extracted from the 2010 National Manpower Stock and Employment Generation Survey provided by the NBS.

The industrial categorisation of National employment data was aggregated to match the GDP industrial categories for a direct comparison of output and employment by sector, and consequently labour productivity. Details of the aggregation process are available upon request.

<sup>7</sup> Throughout this report we have used capitalisation of sectors to differentiate when referring specifically to the NBS definition of the sector, and hence using NBS data, rather than referring to a sector in general terms.

Figure 5 shows the change in the share of GDP in each of the sectors of the economy from 1990 to 2010.

**Figure 5 Share of GDP by sector, 1990 and 2010**



*Source: NBS data, constructed by authors. The 2010 figures are de-based and deflated to 1990 prices. The CC license does not apply to this figure.*

The ICT sector has emerged in recent years as a key component of the Nigerian economy, from a negligible share of GDP in 1990 to 11 percent in 2010. Just over 80 percent of ICT output and 75 percent of ICT employment are accounted for by the Telecoms & Information Services subsector, while the 'Nollywood' Motion Picture & Television Production complex accounts for 8 percent of ICT output and 12 percent of ICT employment. ICT employs a mere 1 percent of total national employment, but it is highly productive.

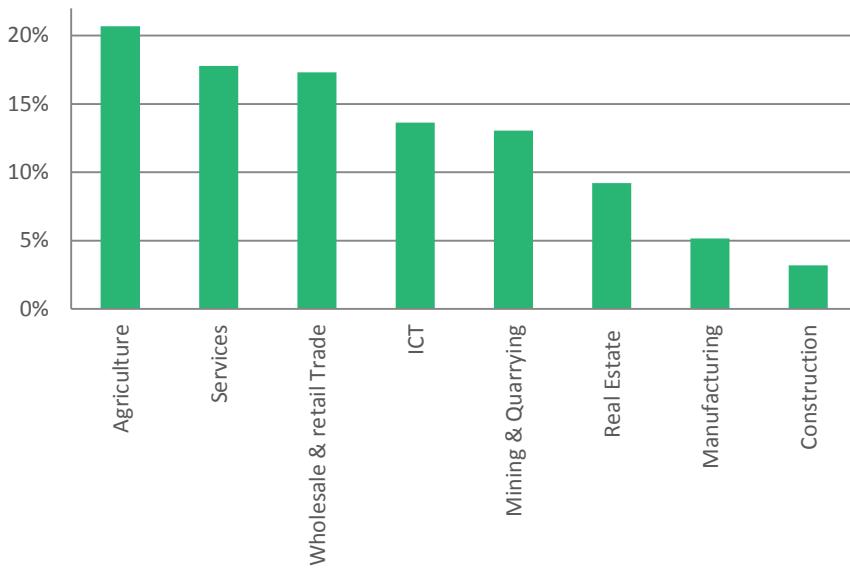
The Real Estate sector is another highly productive sector and key contributor to growth since 1990, but also contributes little in terms of national employment.

The Mining & Quarrying sector is composed of the Oil & Gas and Solid Minerals subsectors. The most productive of these, and by far the most productive subsector of the Nigerian economy, is Oil & Gas, which contributes over 99 percent of Mining & Quarrying output and 15 percent of total GDP. The Solid Minerals subsector, despite contributing less than 1 percent of Mining & Quarrying output, employs the majority of workers in the sector (85 percent). Productivity in Solid Minerals was \$2,768 in 2010, compared to \$2.57 million in Oil & Gas.

About a third of 1990-2010 growth has come from ICT, Oil & Gas (Mining & Quarrying) and Real Estate, the three most productive sectors of the economy, as shown in Figure 6 below.

Agriculture contributed 20 percent of GDP growth over the past two decades, followed by Services (18 percent) and Wholesale & Retail (17 percent). The ailing Manufacturing sector, however, was the second smallest contributor to 1990-2010 GDP growth, accounting for just 5 percent of GDP growth over the period.

**Figure 6 Contribution to Real GDP Growth 1990-2010.**



*Source: Authors' calculations using NBS data. The CC license does not apply to this figure.*

Table 1 below ranks sectors by productivity in 2010. These three sectors, while accounting for almost 35 percent of GDP in 2010 and 36 percent of 1990-2010 GDP growth, together employed a mere 1.5 percent of formal workers in 2010. This may partly explain why Nigeria's impressive growth over the last two decades has done little to reverse the trends of rising unemployment and poverty.

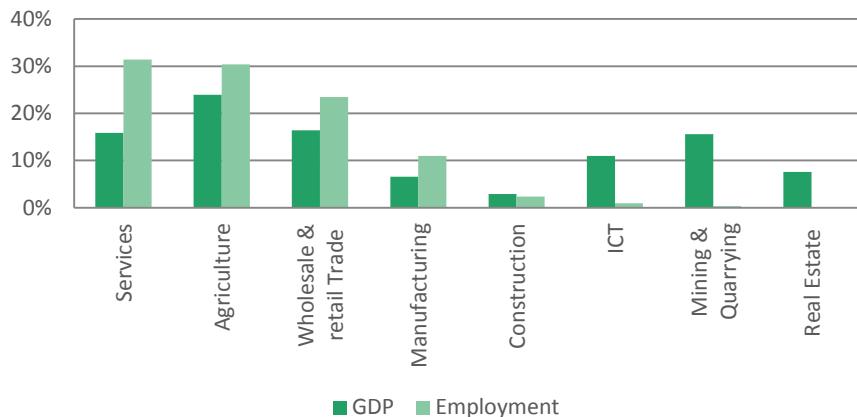
**Table 1 Productivity by broad sectors, 2010**

	Employees	Output (\$'Bln)	Productivity
Real Estate	68,697	27.46	399,799
Mining & Quarrying (incl Oil & Gas)	146,485	56.25	384,007
ICT	469,513	39.66	84,471
Construction	1,142,569	10.45	9,148
Agriculture	14,737,693	86.42	5,864
Whol. & Retail Trade	11,363,603	59.28	5,217
Manufacturing	5,335,898	23.81	4,462
Services	15,234,466	57.00	3,761
<b>TOTAL</b>	<b>48,498,924</b>	<b>360.64</b>	<b>7,436</b>

*Source: Authors' calculations using NBS data. The CC license does not apply to this table.*

Overall, the majority of employment is concentrated in the low productivity sectors of Agriculture, Services and Wholesale and Retail Trade, which account for 85 percent of all formal employment. Figure 7 below shows the share of employment and output in 2010 by sector.

**Figure 7 Share of GDP and employment by sector, 2010**

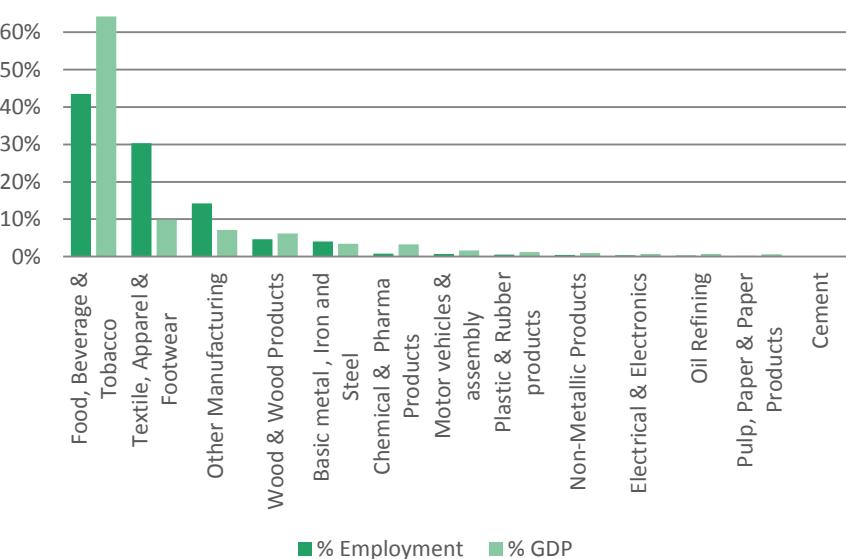


Source: NBS data, constructed by authors. The 2010 figures are de-based and deflated to 1990 prices. The CC license does not apply to this figure.

The Agriculture sector is the largest employer in the country, employing 30 percent of formal workers and contributing 24 percent to total GDP in 2010. The vast majority (90 percent) of agricultural output is in Crop Production, which also accounts for two-thirds of agricultural employment. Crop Production was also the most productive subsector, with an average employee productivity of \$7,933 compared to \$5,864 for the sector as whole. The other significant subsector, Livestock, contributed just 7 percent of output, but employed 28 percent of workers making it the least productive subsector (\$1,526).

The Manufacturing sector has declined as a share of total GDP from more than 10 percent in 1990 to just 6 percent in 2010, employing 11 percent of the workforce in 2010. The majority of Manufacturing output is composed of Food, Beverage & Tobacco (64 percent), and Textile, Apparel & Footwear (10 percent). These two subsectors account for 74 percent of all manufacturing employment.

**Figure 8 Manufacturing map of absolute and relative specialisation**



Source: Authors' calculations using NBS data. The CC license does not apply to this figure.

While both are relatively low productivity subsectors, the Food, Beverage & Tobacco subsector is more productive than seven other Manufacturing subsectors, at \$6,584, as illustrated in Table 2 which ranks manufacturing subsectors by productivity. Textile, Apparel & Footwear, however, is a very low productivity subsector at \$1,448 of output per worker per year. We do not need wage data to infer very low wages for workers in this sector. The top four most productive subsectors, Oil Refining, Non-metallic Products, Pulp, Paper & Paper Products and Plastic & Rubber Products account for 10 percent of manufacturing output, but just 1.4 percent of Manufacturing employment.

**Table 2 Productivity by Manufacturing subsectors, 2010**

	Employees	Output (\$'Bln)	Productivity
Oil Refining	12,532	1.70	135,467
Non-Metallic Products	23,271	0.40	17,025
Pulp, Paper & Paper Products	11,478	0.16	14,118
Plastic & Rubber products	26,677	0.23	8,445
Food, Beverage & Tobacco	2,322,863	15.29	6,584
Chemical & Pharmaceutical Products	42,771	0.17	3,915
Motor vehicles & assembly	38,686	0.15	3,765
Wood & Wood Products	247,200	0.82	3,321
Textile, Apparel & Footwear	1,620,004	2.35	1,448
Basic metal , Iron & Steel	214,283	0.30	1,381
Other Manufacturing	759,028	0.77	1,018
Electrical & Electronics	17,105	0.02	975
Cement	N/A	1.47	N/A
<b>TOTAL</b>	<b>5,335,898</b>	<b>23.81</b>	

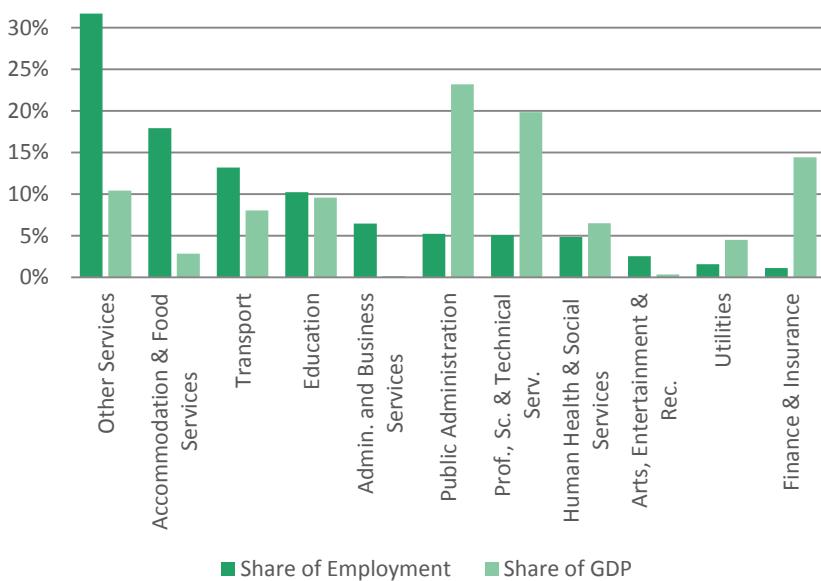
*Source: Authors' calculations using NBS data. The CC license does not apply to this table.*

Unlike the Services sector and the economy as a whole, the Manufacturing sector failed to diversify across subsectors since 1990. The lackluster performance of this sector over the past two decades also partly explains why GDP growth did not translate into a reduction in unemployment and poverty.

The majority of workers in the broad Services sector work in Other Services (32 percent) and Accommodation & Food Services (18 percent). These subsectors, however, contributed just 11 percent and 3 percent of Services output, and are the two least productive subsectors.

At the other end of the spectrum, Finance & Insurance accounts for 1 percent of employment and 14 percent of Services output, with a productivity of over \$45,000, while Professional, Scientific & Technical Services account for 5 percent of employment and 20 percent of Services output, with a productivity of over \$15,000. Thus, the majority of Services employment is concentrated in the lower productivity of the Services sector (Figure 9).

**Figure 9 Services subsectors share of Employment & GDP, 2010**



*Source: Authors' calculations using NBS data. The CC license does not apply to this figure.*

Despite its lackluster performance over the past several decades, Manufacturing has emerged as the single largest contributor to economic growth in 2013. The Manufacturing sector contributed 22 percent to 2013 GDP growth. Non-oil growth accelerated to an estimated 8.4 percent in 2013, while the strong decline in Oil & Gas (-13.1 percent) brought down the overall growth rate for the year.

The majority of the Manufacturing growth has been in the Food & Beverages subsector, although other subsectors have also been growing. Plastic & Rubber Products had annual growth rates over 30 percent in the period 2011-13 and the Cement subsector experienced a 39 percent growth in 2013 only (World Bank, 2014a). It is yet to be seen whether the recent growth in Manufacturing can be sustained, and whether it can become a significant contributor to employment growth.

ICT growth has slowed considerably since 2010 and contributed just 5 percent of total non-oil GDP growth in 2013. While growth of this sector might be slowing due to mobile phone saturation, it is yet to be seen whether a new growth phase driven by a rise in broadband penetration is about to drive a new wave of growth.

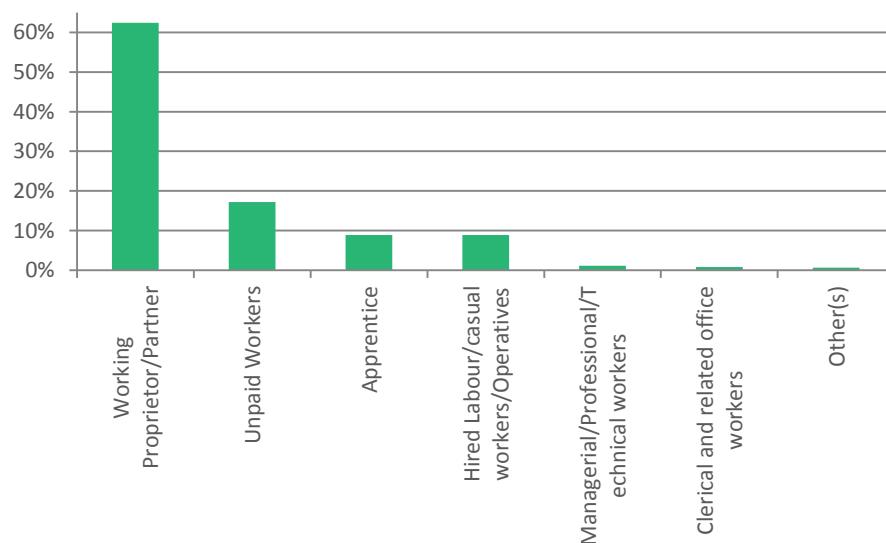
## The informal sector

A picture of the economy is incomplete without a thorough understanding of the informal sector. The term informal sector is an illusive one, due to its complexity and the various ways in which it can be understood and categorised. The NBS use an approach consistent with that of the ILO. It defines the informal economy as “*that which operates without binding official regulations (but it may or may not regulate itself internally) as well as one that operates under official regulations that do not compel rendition of official returns on its operations or production process (NBS, 2010:51).*”

According to NBS data, there is approximately one informal worker for every formal sector worker:<sup>8</sup> 54.6 million informal workers versus 48.5 million formal sector workers. In other words, informal workers make up 53 percent of the active labour force.<sup>9</sup>

Workers in the informal sector are categorized into seven categories. The majority, 62 percent, are categorised as proprietors and/or partners. A staggering 17 percent are unpaid workers, followed by 9 percent Apprentices and 9 percent Hired labour & Casual Workers Operatives, as illustrated in figure 10 below.

**Figure 10 Share of informal workers by categories of worker**



Source: NBS data. The CC license does not apply to this figure.

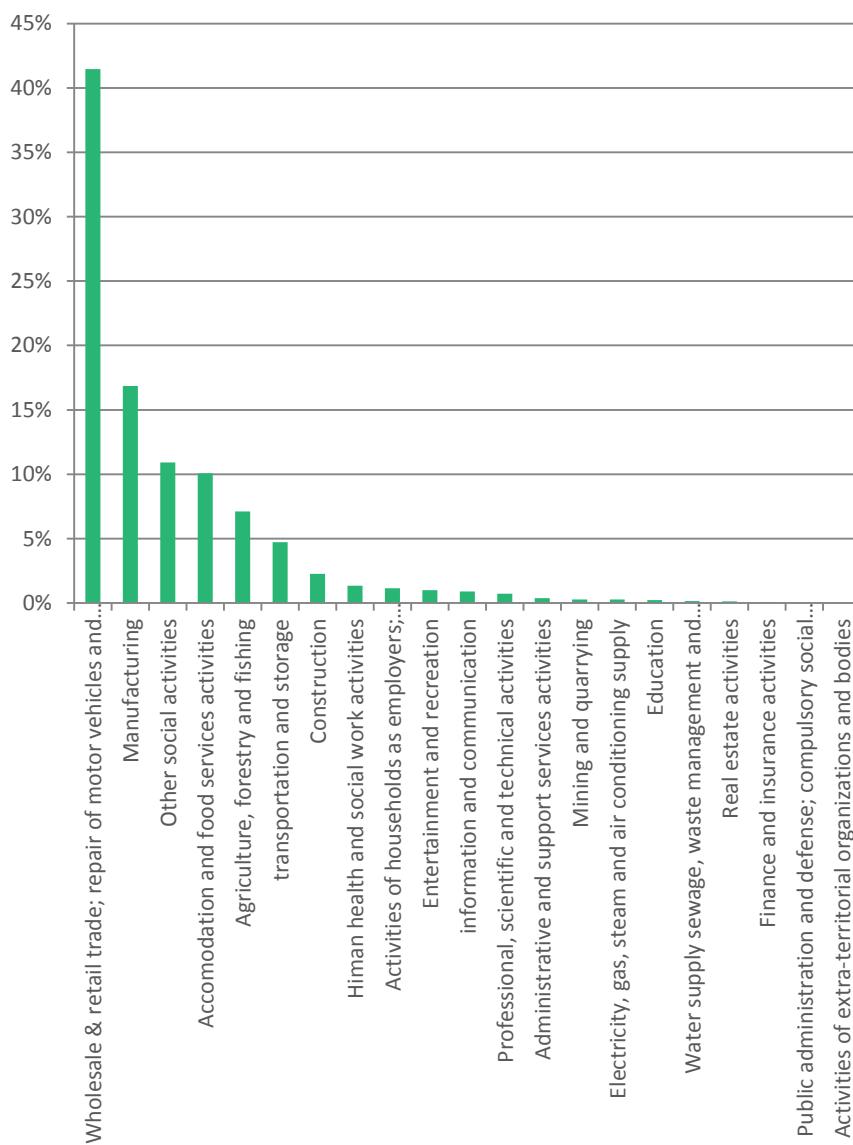
Greater insight into the industrial composition of the informal sector is gauged from NBS data on informal sector owners of micro-enterprises, defined by the NBS as informal sector enterprises. There are a total of 13.6 million individual informal sector business owners in Nigeria, of which 55.4 percent are female.

<sup>8</sup> It is not clear whether a worker could be categorised as formal and informal based on survey data. We proceed with our analysis under the assumption that workers are categorised either as formal or informal workers, although in reality we expect many formal workers to also be active workers in the informal sector.

<sup>9</sup> Formal and informal employment data was obtained from the Household and Informal Sector surveys conducted by the NBS as part of their National Integrated Survey of Households (NISH).

Over 40 percent are categorised as Wholesale & Retail and Repair of Motor Vehicles & MOT, by far the largest category of informal businesses. Unlike the formal economy, Manufacturing is the second largest informal sector, accounting for 17 percent of informal sector micro-enterprises, followed by Other Social Activities (11 percent), and Accommodation & Food Services (10 percent). These four sectors comprise almost 80 percent of informal micro-enterprises. Agriculture, Forestry & Fishing accounts for 7 percent, followed by Transportation & Storage (5 percent) and Construction (2.3 percent) (see Figure 11).

**Figure 11 Industrial composition of the informal sector**



Source: NBS data. The CC license does not apply to this figure.

The above data shows the informal economy to be composed of a diverse range of sectoral activities. We know from the literature that informal sector activities are often interlinked with formal sector firms (Chen, 2007). The informal sector is linked to the formal sector through production, services, logistics and trade, in both forward and backward linkages (Arimah, 2001). The exact nature of this interaction however is poorly understood, and requires further research.

# THE SPATIAL ECONOMY

In this chapter we shift our analysis from the national level to the regional level. As will become apparent, regional economies differ markedly across the States and cities, in terms of per capita incomes, literacy rates, infrastructure provision and the composition of industrial structures. We begin by placing the spatial economy in historical context.

## DEVELOPMENT OF THE NIGERIAN SPATIAL ECONOMY: HISTORICAL CONTEXT

The present-day Nigerian spatial economy can trace its origins to the colonial period and the economic system that developed under colonial rule. Undoubtedly, history has shaped Nigeria's present day spatial industrial structure as it developed. Such spatial-economic dynamics go on to have an impact on cities at regional level.

As Mabogunje (1965) describes, prior to the penetration of European powers in the second half of the 19th and the early 20th centuries, a complex system of trade and urban economies existed in Nigeria. This system of towns and cities had been developing since the early mediaeval period (circa 7th Century) and was particularly evident in the north of the country.

The Hausa States and the Kanem Empire, centred on Borno, were part of a trade network stretching across the Sudan region northwards to the ports of North Africa and on to Europe. The principle products of the region included gold, slaves, ivory, Kola nuts and textiles. Specialised urban centres of trading developed as a consequence of this trade, including Katsina, Kano and Zaria, with Kano the commercial metropolis of the region with a population of between 30,000 and 60,000 and a thriving textiles industry.

Urban settlements also developed in the south-western Yoruba part of the country at around the same time. These towns developed originally as a result of Yoruba colonisation, rather as a consequence of long distance trade, but soon became trading centres themselves (Mabogunje, 1965).

This trade had a local dimension involving the exchange of agricultural for craft products, as well as an inter-regional element of trade with the kingdoms further north. The most important urban settlements at the time included Lagos, Oyo and Ibadan. With the arrival of European explorers from the late 15th Century onwards, the flow of trade began to orient towards the coast increasing the importance of the Niger and other rivers as a means of transporting slaves and commodities from the heart of the territory. Consequently, new settlements developed in the Niger Delta, including Calabar and Bonny.

Under British colonial rule from 1885 to 1960 the spatial economy developed in response to several factors. The first factor was the construction of the railways across the country. The western line between Lagos and Kano was constructed by 1912 and an eastern line from Port Harcourt to Jos, which joined up with the western line in Kaduna, was

constructed by 1927. This substantially reduced transport times and costs from the north of the country to the coast. For example, the journey time from the tin mines in Jos to the coast decreased from 35 days to less than 35 hours, while costs reduced by three quarters (Mabogunje, 1965). The result was a huge increase in the production of agricultural and mineral commodities for export in the north of the country, with the direction of trade now channeled almost exclusively towards the ports of Lagos and Port Harcourt, which became the most important nodes in the transport network (Mabogunje, 1965).

Pre-colonial towns connected to the rail network (e.g. Kano and Ibadan) grew rapidly, while new urban centres emerged, including, Kaduna and Enugu. On the other hand, traditionally important towns that were bypassed by the railways, such as Oyo, Ile-Ife and Benin City, declined in importance (Aka, 1994).

Another important factor was the integration of Nigeria into the larger spatial economy of the British Empire. Nigeria, along with other colonies in West Africa, were part of the periphery of this spatial economy, with Britain as the metropolitan core. In this system, the country became primarily a market for British manufactured goods and a supplier of raw materials for British factories. Consequently, Nigeria's urban centres did not develop as industrial centres because of the steady supply of manufactured goods from mainland Britain, while pre-existing local crafts and industries were undermined by the flood of cheap imports.

The final major factor from the colonial period that influenced the development of the spatial economy was education. Under colonial rule, schools were mostly established in the south of the country, particularly in the south west around Lagos. Consequently, the north lagged behind the south in terms of the number of schools, literacy rate and general human capital development (Aka, 1994) – a pattern that exists to the present day.

Following independence in 1960, Nigeria pursued a policy of import substitution industrialisation, outlined under the first National Development Plan for the period 1962-68. The plan period witnessed significant investments in infrastructure to support the nascent industrial sector. These included the Kanji dam in Niger state, the Ughelli thermal plants in Delta state and the oil refinery in Port Harcourt (Chete et al., 2014).

After the end of the civil war in 1970, Nigeria embraced its status as an oil producing country. As the economy benefited from enormous foreign exchange inflows, the government established ambitious and costly industrial projects, firstly in subsectors such as iron, steel, cement, salt, sugar, fertiliser, pulp and paper. The shallow nature of Nigeria's technological capacity, the impact of corruption on decision-making, as well as flawed policies on spatial development, however, prevented the economy from moving beyond the elementary phases of these projects and many were subsequently abandoned. Later, during the height of the oil boom in the 1970s, private firms opted for investments in low technology consumer industries, which were dependent on imported machinery and raw materials (Chete et al., 2014).

Throughout the post-independence period, manufacturing was concentrated primarily in four areas of the country (Iloeje, 1981):

- The western industrial axis: Lagos; Ibadan; Abeokuta; Epe; Ilorin; and Ewekoro
- The south-east industrial zone: Onitsha; Port Harcourt; Oji River; Enugu; Aba; Umuahia; and Calabar
- The north-central industrial zone: Kano; Kaduna; Jos; and Zaria
- The mid-west industrial zone: Benin City; Sapele; and Warri.

Although the areas above are described as industrial zones, they did not constitute continuous regions of intensive industrial activity; rather the vast majority (over 90 percent) of manufacturing establishments were concentrated in urban settlements found in these areas (Iloeje, 1981).

According to data in Aka (1994), in 1970, Lagos, Kaduna, Kano, Ibadan and Jos between them accounted for 87 percent of total industrial output, 60 percent of establishments and 77 percent of industrial employment, with Lagos itself contributing 58 percent of this output.

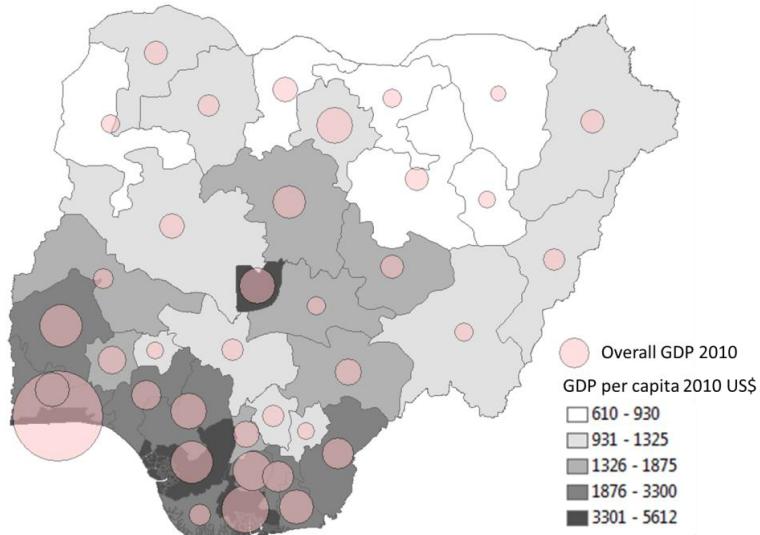
By the early 1980s, it was apparent that the grand industrial projects pursued under the import substitution industrialisation strategy had failed to translate into meaningful development of the country's industrial sector. Manufacturing's share of GDP was just 5.6 percent in 1981. The global recession, and subsequent drop in oil prices, left the economy facing a balance of payments crisis and dwindling foreign exchange earnings undermined a manufacturing sector reliant on imported raw materials and machinery (Chete et al., 2014).

A Structural Adjustment Programme was adopted in 1986, marking the end of import substitution industrialisation and the beginning of economic liberalisation and the development of the spatial economy to its current state, which is described in detail below.

## **REGIONAL DISPARITIES: INCOME, POVERTY, INEQUALITY AND LITERACY**

With the exception of the Federal Capital Territory (Abuja), overall GDP is largely concentrated in the states representing the former Southern Nigeria Protectorate, while GDP per capita is noticeably lower in the states of the former Northern Nigeria Protectorate. The average GDP per capita of the northern states is just \$1,153, compared to \$2,432 for the southern states and \$5,612 for the Federal Capital Territory (see Figure 12).

**Figure 12 GDP and GDP per capita by state, Nigeria, 2010**

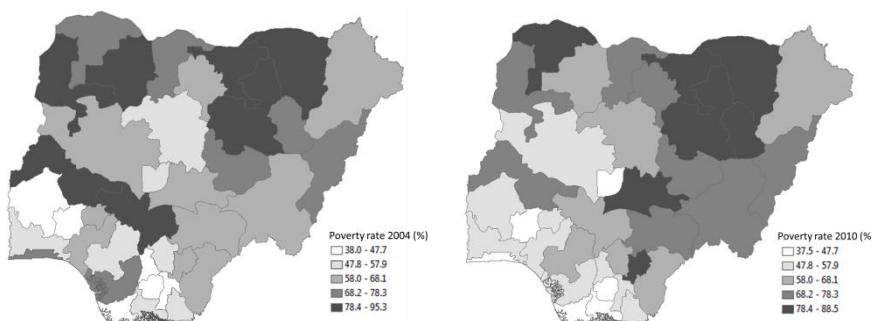


Source: NBS data, constructed by authors. The CC license does not apply to this figure.

The regional disparity in output is reflected in other socio-economic indicators, including state-level poverty and literacy rates. The absolute per capita poverty headcount was 62.6 percent in 2010, down from 64.2 percent in 2004. Poverty was more prevalent in rural areas (69.0 percent) than in urban areas (51.2 percent) and in the north of the country than the south. In 2010, Osun State had the lowest poverty rate (37.5) and Jigawa the highest (88.5).

Figure 13 below shows the poverty rate in Nigerian states in 2004 and 2010. Significant progress has been made to reduce poverty in some states, while others have seen poverty increase: poverty in Lagos reduced from 69.4 percent in 2004 to 40.3 percent in 2010, while in Ebonyi it increased from 63.2 to 82.9. There is no clear pattern to this variation in poverty reduction, implying that reductions may be due to conditions in the individual states, rather than to nationwide factors.

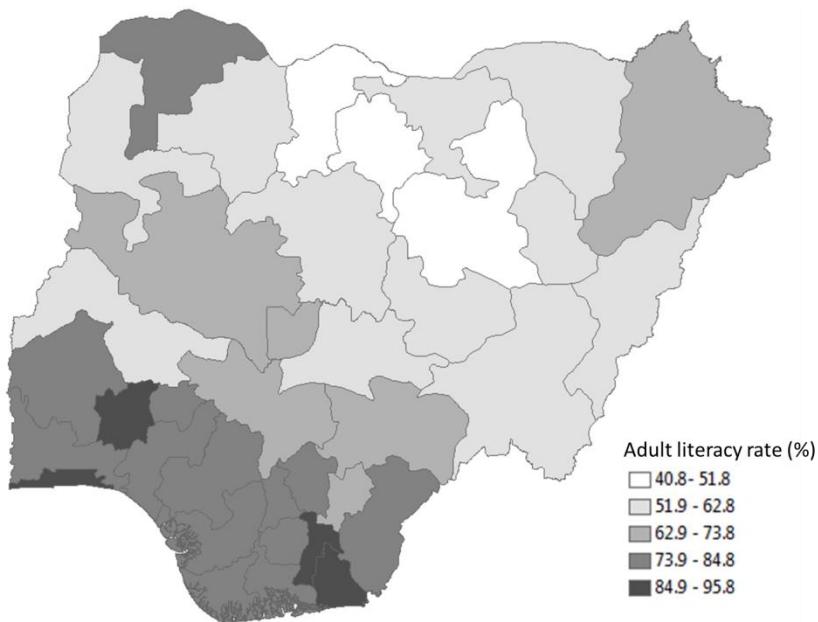
**Figure 13 Poverty headcount by state, Nigeria, 2004 (left) and 2010 (right)**



Source: NBS Revised Absolute Poverty Report, 2010, constructed by authors. The CC license does not apply to this figure.

Figure 14 shows the adult literacy rate by state in 2010, illustrating a clear north-south divide in educational attainment. The lower skills of workers in the north reduces productivity and deters investors, as well as posing a risk to social stability.

Figure 14 Literacy rate by state, Nigeria, 2010



Source: NBS Annual Abstract of Statistics 2011, constructed by authors. The CC license does not apply to this figure.

Inequality, as measured by the Gini coefficient, is highest in the South East (0.36) and South South (0.35), but lowest in the South West (0.29).

Inequality in the three northern states is fairly constant; North Central (0.3); North East (0.31) and; North West (0.32) (World Bank, 2014a).

An increase in inequality, however, is just one aspect of the problem. As Clementi et al. (2014) show, Nigeria is also undergoing a process of increasing polarisation – the combination of divergence from global and convergence on local mean incomes. In other words, there is increasing concentration of incomes at both the highest and lowest deciles and a ‘hollowing out’ of the middle.

This is at odds with the emerging narrative on sub-Saharan Africa that tells a story of a rapidly growing consumer middle class (AfDB, 2011; Fine et al., 2012). The pattern of distributional change, however, is not entirely homogeneous within the country, but varies from zone to zone. Clementi et al. (2014) demonstrate that, between 2003-4 and 2012-13, households living in the north of the country increasingly moved from the centre towards the bottom of the consumption distribution, while southern households increasingly moved upwards. This has further accentuated the north-south divide.

## INFRASTRUCTURE NETWORKS

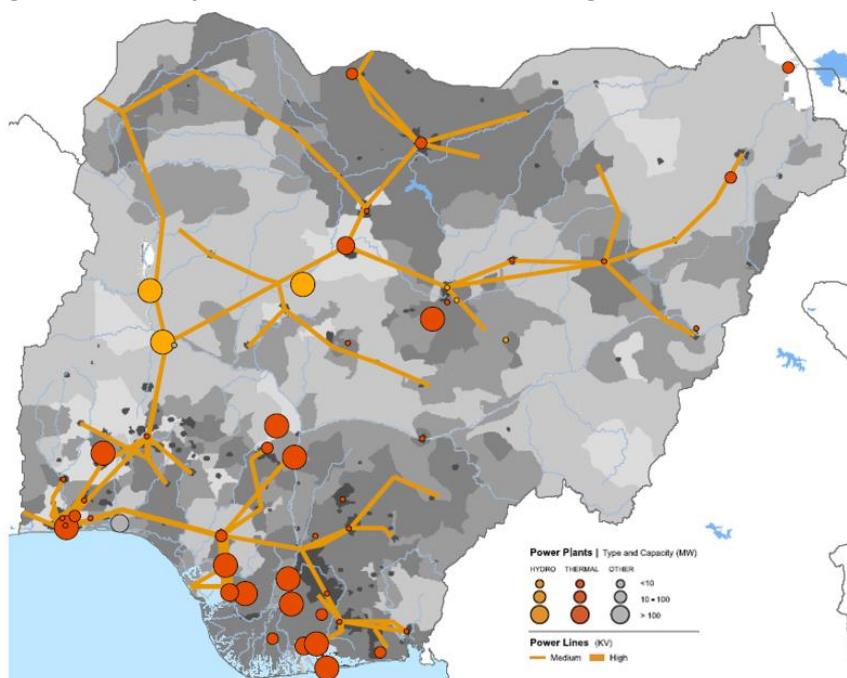
The positive role of infrastructure in economic development is widely acknowledged in the literature (Adenikinju, 2003; Foster and Pushak, 2011; OECD 2006). According to Prasad (2011), infrastructure investments have contributed more than half to Africa’s economic growth in recent years in terms of GDP. However, and therefore of major relevance for growth, Nigeria suffers from an obsolete infrastructure (Adenikinju, 2003; Ogunleye, 2008; Ogun, 2010; Olanipekun, 2013).

The sudden revenues received from oil in the 1970s created the conditions for major investments in infrastructure capacity, notably ports, roads, bridges and airports (EIU, 2012; Metz 1991). Reductions in Federal budgets due to fluctuations in oil prices in the 1980s resulted in no significant additions to infrastructure capacity, as well as a lack of funds destined to the maintenance of existing infrastructure. This caused a deterioration of the country's road network (World Bank, 1991). As roads are essential for the distribution of goods, a failing road system is a major constraint for economic growth. The deficiencies of the power supply and the impacts on growth and productivity are another major issue in Nigeria (Koskimäki, 2012).

Nigeria's infrastructure networks (illustrated in Figures 15-17) mirror the spatial concentration of economic activity in the south of the country, although the country has developed infrastructure backbones that are national in reach (Foster and Puschak, 2011).

The national power transmission network has the majority of all major generation assets connected to the system and the majority of the country has access to electricity, especially in urban areas. However, the capacity and reliability of the supply is insufficient. In 2008, the power system was only able to meet 55 percent of estimated demand (Foster and Puschak, 2011).

**Figure 15 Power plants and transmission lines, Nigeria, 2009**

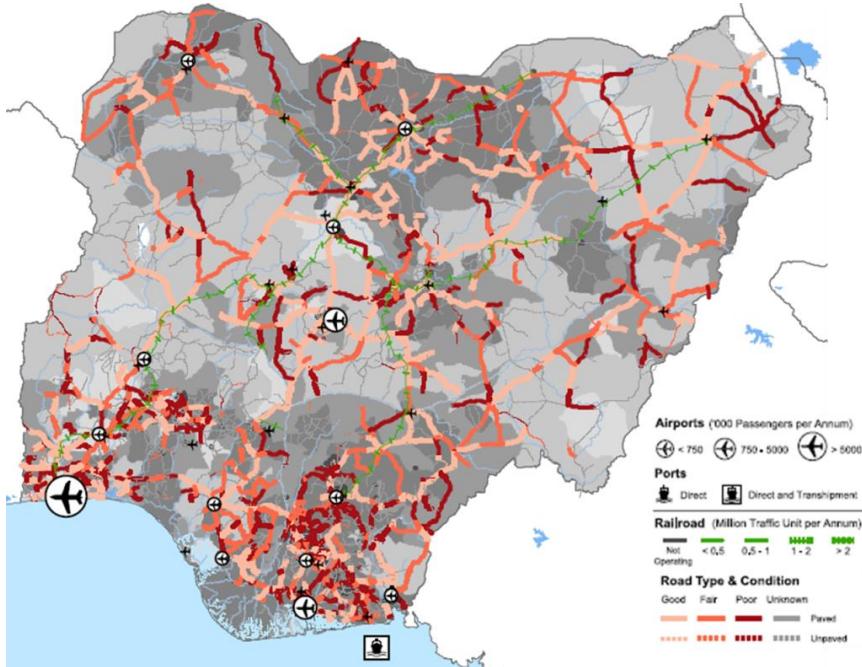


*Source: Africa Infrastructure Country Diagnostic. The CC license does not apply to this figure.*

Nigeria has an extensive transport network, relative to other resource-rich African countries. Both paved and unpaved road densities are more than twice as high as comparable countries, although the percentage of these roads in good or fair condition is lower. Nigeria's rail network, a legacy of the colonial era, stretches across the country, linking several major cities. However, due to deficient performance and erratic service, both passenger and freight traffic have been in long-term decline. As a result, traffic

density is a tiny fraction of the already low levels found on other African railways (Foster and Puschak, 2011).

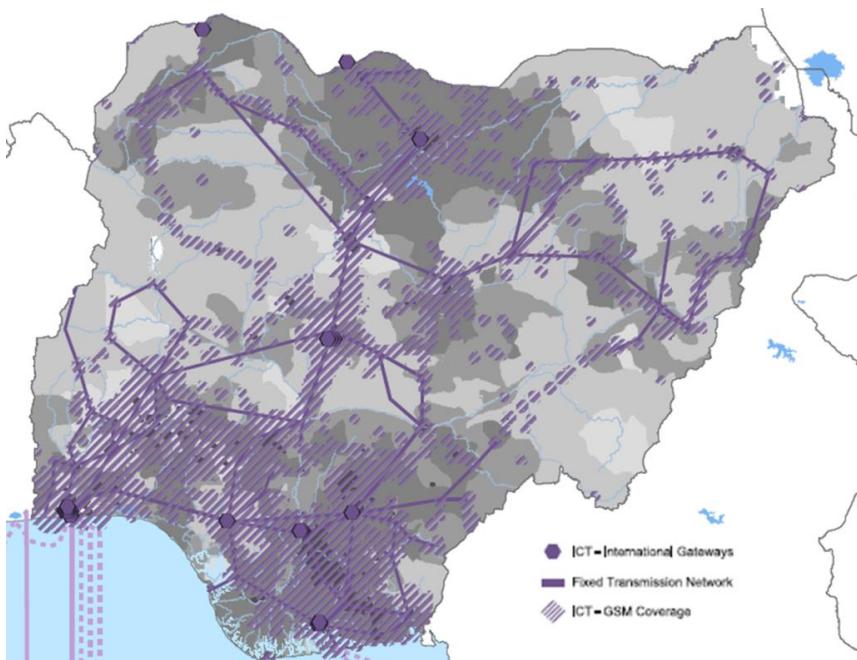
**Figure 16 Transport infrastructure, Nigeria, 2009**



Source: Africa Infrastructure Country Diagnostic. The CC license does not apply to this figure.

Nigeria has made good progress in expanding both GSM and fixed transmission networks, and the major urban areas of the country all have coverage. Some 70 percent of the population was within range of a GSM signal in 2009, though many rural areas in the north of the country still lacked coverage (Foster and Puschak, 2011).

**Figure 17 ICT infrastructure, Nigeria, 2009**



Source: Africa Infrastructure Country Diagnostic. The CC license does not apply to this figure.

## THE SPATIAL ECONOMY AND AGGLOMERATION

Agglomeration economies of matching, sharing and learning (Duranton and Puga, 2004) operate at the scale of the functional urban centre (urbanisation economies) (Jacobs, 1969) and at the intra-regional scale from the propinquity of inter-related firms (localisation economies) (Marshall, 1890).

In this section we focus on the spatial distribution of industries across Nigeria's functional urban centres. Short of conducting input-output analysis or analysing commuter zones to determine the boundaries of functional urban regions, a feasible unit of analysis is the metropolitan region.

Each State in Nigeria contains many villages, town and small cities, and one major metropolitan region.<sup>10</sup> In the absence of metropolitan-level data on employment by sector, we use state-level data as a proxy for metro-level data.<sup>11</sup> We analysed specialisation patterns by measuring the absolute size of employment by sector (absolute specialisation), and by comparing the share of each sector's State employment to its share in the National economy (relative specialisation) using location quotients (LQs).<sup>12</sup> Specialisation patterns are important because the types of industries concentrated in metropolitan regions to a great extent determine the employment and wages in that region.

Absolute specialisation captures the agglomeration economies from the concentration of firms and workers in geographic space. As related firms begin to agglomerate in space, they begin to rely on their proximity to each other, regionally-based human capital and other regional factor endowments such as institutions to conduct their business. This in turn attracts more firms and human capital related to the growing agglomeration in what is characterised as a snowball effect, creating a spatial pattern of absolute specialisation.

Relative specialisation will often correlate with absolute specialisation, but in some cases captures a small agglomeration whose relative size to its regional economy is disproportionately large. This could be a sign of a budding agglomeration as a disproportionate share of firms and workers

<sup>10</sup> The Cenback Global Income Distribution Database (C-GIDD) identifies one metropolitan region per State which stands out from other major cities, urban centres and rural areas. State-level employment data by sector for all industries other than Agriculture and Mining & Quarrying is a reasonable proxy for metropolitan-level industrial composition by employment.

<sup>11</sup> State specialisation was analysed excluding Agriculture and Mining & Quarrying, two sectors whose locations are determined by natural factor endowments. We used 2010 NBS data in employment by sector across the 37 States.

<sup>12</sup> An LQ is calculated by dividing a given industry's share of total regional employment by the National share of employment in that industry. So for example if 20 percent of regional employment is in manufacturing, and the National share of Manufacturing employment is 10 percent, then the Manufacturing LQ of that region is 20 percent divided by 10 percent, giving that industry in that region an LQ of 2. i.e. the share of manufacturing employment in that region is twice that of the country as a whole.

find opportunities in a particular sector. Moreover, relative specialisation could likely attract the political attention of business and political elites, further facilitating its future growth. While absolute specialisation (from sheer size, irrespective of regional share of employment) is an indication of strong localisation economies from scale, relative specialisation must not be ignored as it may be a sign of future growth.

Sectors can be categorised into tradable and non-tradable industries depending on their market reach. Tradable industries can sell their products or services outside the region in which they are located – by exporting to cities (and other markets) near and far. The market of non-tradable industries on the other hand is limited by local demand (the home market) as it cannot be feasibly exported. While a furniture manufacturer can export its products to markets beyond the region, a dry-cleaner can only sell its services to local households (with the exception of tourists).

This is an important distinction when looking at industrial location, because the size and productivity of the tradable sector in a region has a strong effect on regional wages and income (Storper and Kemeny, 2012). While non-tradable industry sales, and consequently employment, are limited by the size of the home market, tradable industry sales and employment are limited by their capacity to penetrate global markets. Income from employment and investments in the tradable industries in turn spillover into the non-tradable economy through greater local purchasing power; what economists call the Balassa-Samuelson effect (Balassa, 1964; Moretti, 2012).

On the whole, one would expect the relative socialisation of non-tradable sectors to be proportional to the size of the regional economy. The size of a regional economy is a function of its population size and the wealth of its residents. One would therefore expect the location quotients (LQs) of non-tradable industries to be nearer to 1 across metropolitan regions, give or take differences in income. Tradable industries on the other hand will tend to agglomerate where they can tap into their industry-specific agglomeration economies (in the case of Agriculture and Mining & Quarrying however, two tradable industries, their locations will be predominantly based on natural-resource endowments and outside urban centres).

Table 10 categorises industries by tradable and non-tradable sectors. Services has been disaggregated into its subsectors because employment data is available at state level. The Agricultural sector, which consists of Crop Production, Livestock, Forestry and Fishing, and Manufacturing, with its 13 subsectors as per NBS disaggregation of GDP data, are only available at the broad industrial category at state level. Given that the Services sector is much more diversified than the Manufacturing sector (see national industrial composition section above), the data is adequate for the purpose of this analysis. Further research will have to gain a better understanding of specific manufacturing subsectors and their intra-regional agglomerations.

**Table 3 State-level employment data by tradeable and non-tradeable sectors**

Tradable sectors	National Employment	Share of Total National Employment
Agriculture	14,737,693	30.39%
Manufacturing	5,335,898	11.00%
Prof., Sc. & Technical Serv.	777,220	1.60%
ICT	469,513	0.97%
Finance & Insurance	171,403	0.35%
Mining & Quarrying	146,485	0.30%
Non-Tradable sectors		
Wholesale & Retail Trade	11,363,603	23.43%
Other Services	4,832,274	9.96%
Accommodation & Food Services	2,730,308	5.63%
Transport	2,009,184	4.14%
Education	1,557,665	3.21%
Construction	1,142,569	2.36%
Admin. and Business Services	986,480	2.03%
Public Administration	800,333	1.65%
Human Health & Social Services	739,936	1.53%
Arts, Entertainment & Rec.	390,275	0.80%
Utilities	239,388	0.49%
Real Estate	68,697	0.14%

*Source: Author's calculations using NBS State-level employment data. The CC license does not apply to this table.*

The above categorisation shows the potential for the tradable sectors to export. As is well known, however, manufacturing exports are limited, as firms have found it difficult to penetrate foreign markets. However, more research is needed to get a better understanding of Manufacturing subsectors' markets, if not globally, then at least at national and regional scales (such as neighbouring countries). We begin by analysing the specialisation patterns of the tradable industries.

Agricultural employment is, in general, more concentrated in the north of the country, with 15 of the 20 northern states having a location quotient (LQ) of greater than 1. The North East geo-political zone has the highest average LQ of 1.57, followed by the North West zone with 1.27. The state with the highest LQ, however, is Benue in the North Central zone (2.05).

Mining & Quarrying employment is concentrated in the South South geo-political zone, particularly in Rivers State, which has 20 percent of all mining and quarrying employment and an LQ of 5.63. As shown in the analysis of the national industrial structure, while the Oil & Gas sector accounts for the vast majority of output (over 99 percent), the majority of

employment (85 percent) is in Solid Minerals, which has a very low level of productivity (\$2,768 in 2010).

The two largest Manufacturing agglomerations are located in the south west of the country, centred around Lagos, and in the North-West around Kano.

Lagos has the highest number of Manufacturing workers, with 545,000, accounting for 15 percent of total state employment. The size of manufacturing employment in Lagos however is proportional to the size of its population, evidently by an LQ of 0.92. Other major Manufacturing agglomerations are found in Oyo and Ogun, making the South West the largest manufacturing agglomeration with these three states accounting for 20 percent of national manufacturing employment.

The second largest Manufacturing agglomeration is in Kano, with 384,000 employees, and an LQ of 1.23.<sup>13</sup> The Kano Manufacturing cluster is located in Kano city, primarily in the textiles and tanning and leather subsectors. However, these two subsectors are in decline and are, moreover, low productivity activities. This is reflected in the low GDP per capita of the state. Jigawa and Kaduna are also major Manufacturing employment centres, making the North West an important manufacturing zone. This region's manufacturing industry however has also been in decline. Table 4 ranks states by their absolute specialisation in the Manufacturing sector.

**Table 4 Top-10 states by absolute specialisation in manufacturing employment**

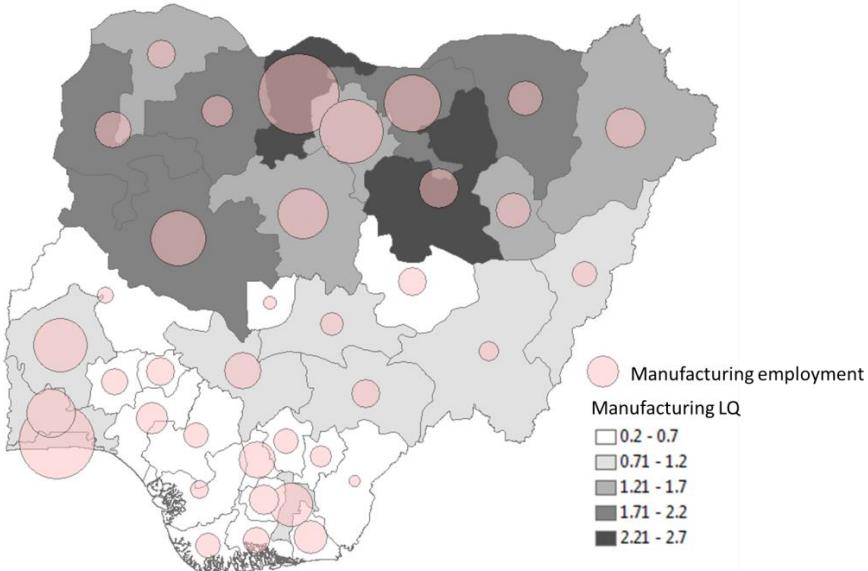
State	State Manufacturing Employment	Share of State Employment	Share of National Manufacturing employment
LAGOS	544,542	14.65%	11.57%
KANO	383,766	19.55%	8.15%
JIGAWA	312,855	30.54%	6.65%
NIGER	301,986	33.01%	6.42%
OYO	273,264	13.79%	5.80%
KADUNA	249,413	22.83%	5.30%
OGUN	230,617	14.28%	4.90%
ABIA	177,055	18.69%	3.76%
BAUCHI	161,374	40.82%	3.43%
BORNO	156,259	23.51%	3.32%

*Source: Authors' calculations using NBS manufacturing employment data. Katsina was removed from the above analysis due to evident data error. The CC license does not apply to this table.*

<sup>13</sup> While the NBS data shows Katsina to be the most specialised manufacturing state in Nigeria, with a 12 percent share of national employment and an LQ of 2.7, we know this data to be incorrect. This was confirmed by interviews with business leaders including the head of the Lagos Chamber of Commerce, the NBS themselves who acknowledge this error in their data, and the relative number of manufacturing firms in Katsina listed in NACCIMA Business Directory.

Figure 18 maps out the absolute and relative specialisation of states in manufacturing employment.

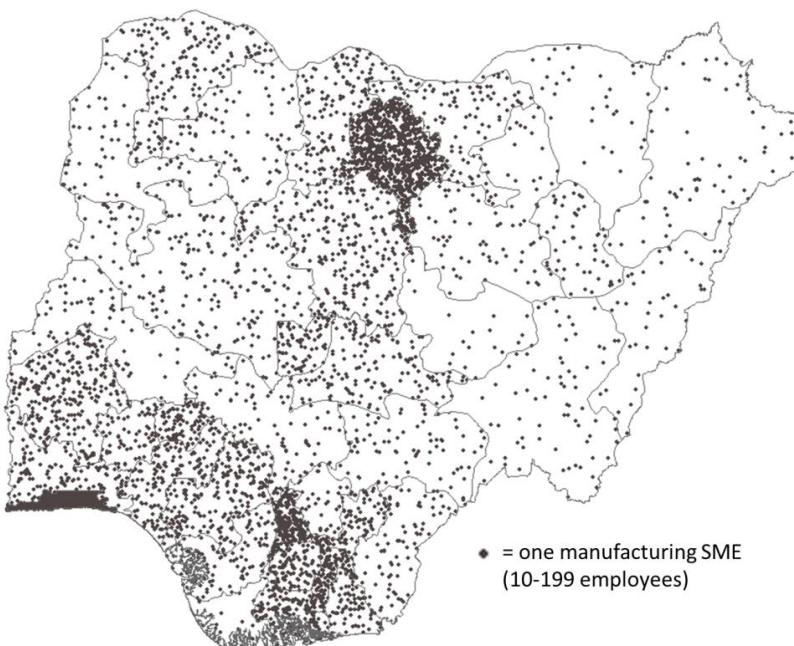
**Figure 18 Manufacturing employment and LQ by state, 2010**



*Source: NBS data, constructed by authors. The CC license does not apply to this figure.*

Due to the unreliability of NBS Manufacturing employment data in particular, we corroborate these findings with an analysis of the spatial location of SMEs, illustrated in Figure 19 below. According to this analysis Lagos has the largest concentration of manufacturing SMEs (1,195), followed by the North-West region around Kano. A third evident agglomeration not apparent in NBS employment data is in the south of the country, around Rivers State.

**Figure 19 Location of manufacturing SMEs at the state level, 2010**



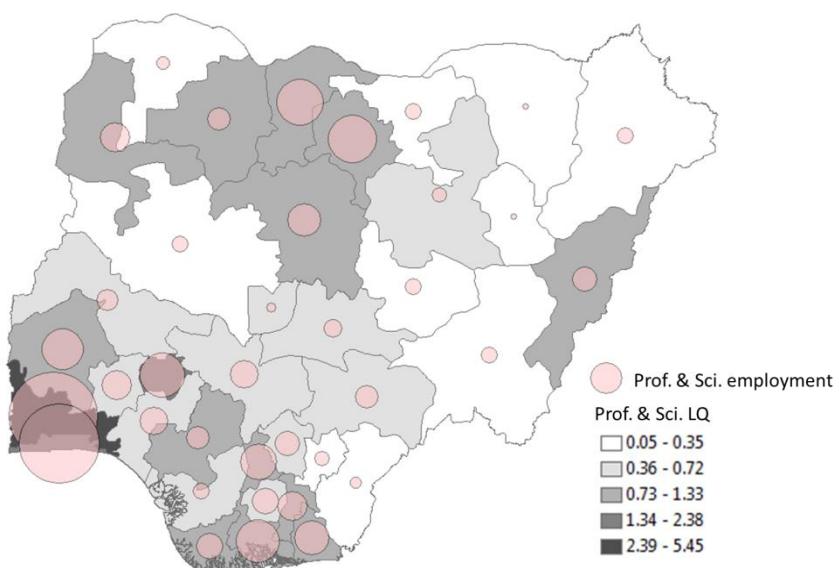
Source: NBS National MSME Collaborative Survey (2010). Dots represent one firm in that state, not the exact location of a firm, constructed by authors. The CC license does not apply to this figure.

The Professional, Scientific & Technical Activities subsector deserves special attention due to its substantial share of the services sector output (20 percent) and its high level of worker productivity (almost \$15,000). By far the two largest agglomerations are Ogun and Lagos with almost 155,000 and just above 126,000 workers respectively.

Ogun stands out as having both the highest number of workers, and the highest LQ of 4.14. Lagos is the only other state with a disproportionately large number of Professional, Scientific & Technical Activities workers, just over 126,000, and an LQ of 1.5 times the national share.

It is likely that a significant proportion of the activities of this service subsector is linked to the oil and gas industry, which essentially makes it an important tradable pursuit that is connected upstream to the most productive and exported Nigerian industry.

**Figure 20 Professional, Scientific & Technical activities employment and LQ by state, 2010**

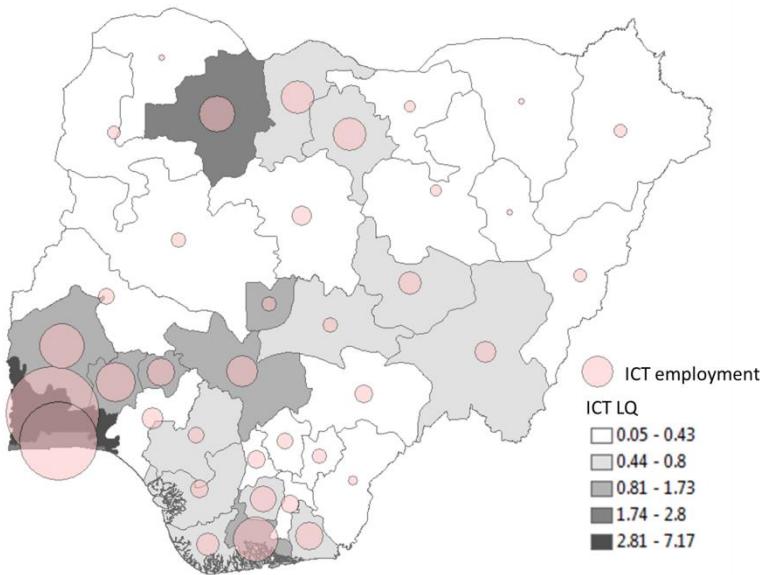


*Source: NBS data, constructed by authors. The CC license does not apply to this figure.*

The ICT sector is highly concentrated in the South West of the country, with over 26 percent of total ICT employment in Ogun, a further 18 percent in Lagos and nearly 60 percent for the zone as a whole.

Ogun is particularly specialised, with an LQ of 7.17 and nearly 8 percent of all workers employed in the sector. In Lagos it is just 2 percent. Although the number of employees is small, the high productivity of the sector and its linkages to other sectors means that it has an important impact on the economy of the region. Zamfara has an LQ of 3.69 but we know this data to be incorrect.

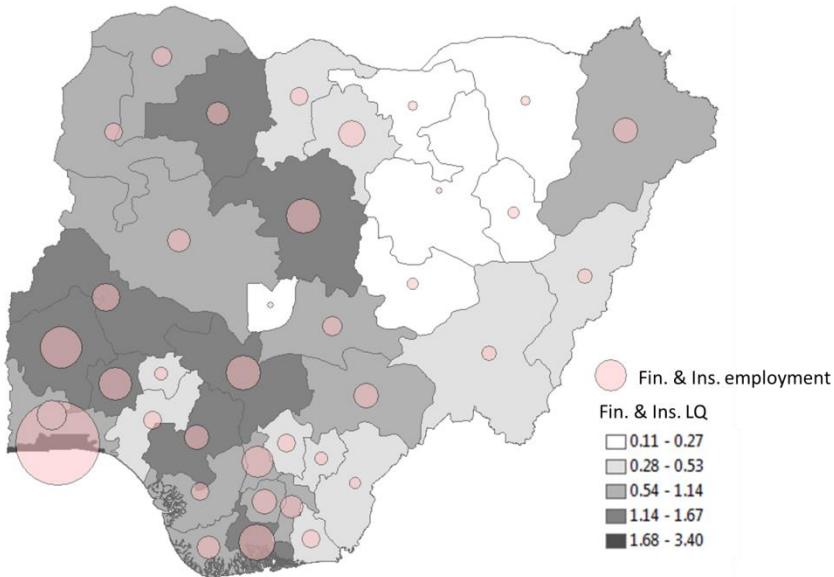
**Figure 21 ICT employment and LQ by state, 2010**



*Source: NBS data, constructed by authors. The CC license does not apply to this figure.*

The Finance & Insurance sector is concentrated in Lagos, which accounts for just below 46,000 workers, 27 percent of the sector's total employment. Finance & Insurance is a highly productive sector that employs relatively few workers. In Lagos, it accounts for just over 1 percent of formal jobs, while in all other states it is less than 1 percent, equivalent to an LQ of 2.43. Nevertheless, it makes an important contribution to output because of its high productivity.

**Figure 22 Finance & Insurance employment and LQ by state, 2010**



*Source: NBS data, constructed by authors. The CC license does not apply to this figure.*

In the context of the spatial distribution of the tradable sectors of the economy described above, a correlation between the concentration of employment in high productivity tradeable sectors and GDP per capita is

apparent. ICT, Professional, Scientific & Technical Activities, and Real Estate subsectors are concentrated in the South West, the geo-political zone with the highest GDP per capita. In contrast, the states with the lowest GDP per capita are all specialised in low productivity manufacturing: five of the top six states in terms of manufacturing LQs had a GDP per capita of less than \$1,000 in 2010. While Manufacturing is a tradable sector, we know that Nigeria's manufacturing has struggled to grow relative to the rest of the economy, has been unable to penetrate international markets, and is specialised in relatively low-productivity subsectors.

Turning to non-tradable sectors, Wholesale & Retail Trade is, along with Services, the most evenly distributed sector in terms of employment, with the exception of the North West, where average state LQ is just 0.5. This stands in contrast to its apparent specialisation in manufacturing, an indicator that the majority of manufacturing products are being produced for sale in markets outside of the region. Low productivity manufacturing employment is not translating into a sufficiently large consumer base for a thriving Wholesale & Retail Trade in the North West.

As expected, the Federal Capital Territory and the bordering Nassarawa state are specialised in Public Administration & Defence, with LQs of 4.15 and 4.64 respectively, but Delta is the most specialised region in Public Administration & Defence accounting for 15 percent of total State employment with an LQ of 6.24.

The largest agglomeration of workers in the Construction sector is found in Lagos, although this is driven by the size of the population, rather than by specialisation with an LQ of 1.03. Outside of Lagos, the states of Anambra, Imo and Rivers have the next highest shares of construction employment, together accounting for 22 percent of national employment in 2010 and with LQs of 1.95, 2.22 and 1.88 respectively. Each of the states in the South East zone had LQs greater than one, as did the states in the South South zone, with the exception of Cross River. Conversely, states in the North West and North East zones all had LQs of less than one – Zamfara had an LQ of 0.07.

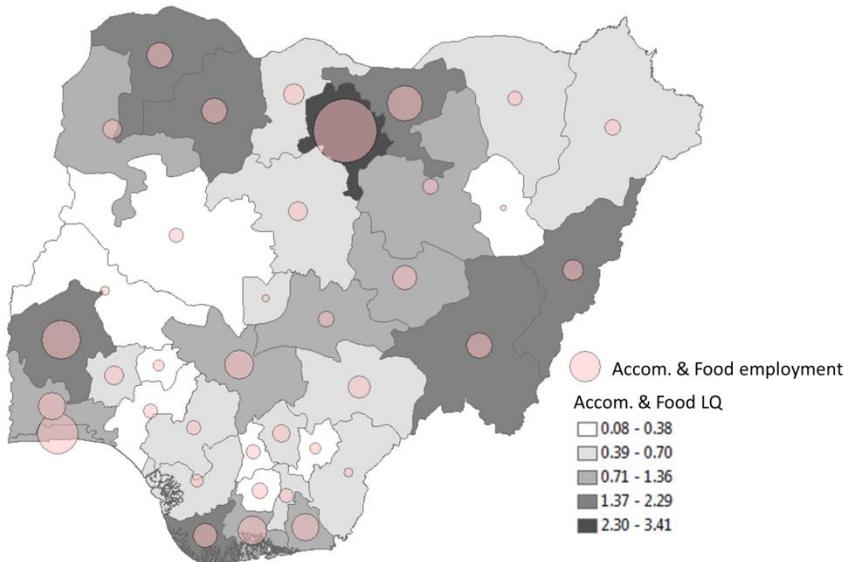
The Real Estate sector is heavily concentrated in Lagos, which accounts for nearly half (47 percent) of all real estate employees, and neighbouring Ogun (10 percent) and Oyo (6 percent) states. The sector is of little significance in the three northern zones of the country, with the exceptions of the Federal Capital Territory and Kaduna.

Although the Services sector as a whole is generally evenly dispersed, there are significant differences at the subsector level between states. We analysed above the tradable subsectors of the Services industry, Finance & Insurance and Professional, Scientific & Technical Services which are highly concentrated in the South-West, in and around Lagos. Here we will only present the findings of the Accommodation & Food Services subsector because it is the largest Services subsector by employment (after Other Services).

Kano has a large agglomeration in the Accommodation & Food Services subsector, which accounts for 27 percent of all employment with an LQ of 3.4. This finding raises questions about the reliability of data, given Kano's recent economic decline, the relative size and dynamism of Lagos which

one would expect to have a larger Accommodation & Food Services industry, and given the non-tradable nature of this industry. The Accommodation and Food Services sector is one of the least productive sectors of the Nigerian economy; whose average productivity is just \$599 per worker.

**Figure 23 Accommodation & Food Service employment and LQ by state, 2010**



*Source: NBS data, constructed by authors. The CC license does not apply to this figure.*

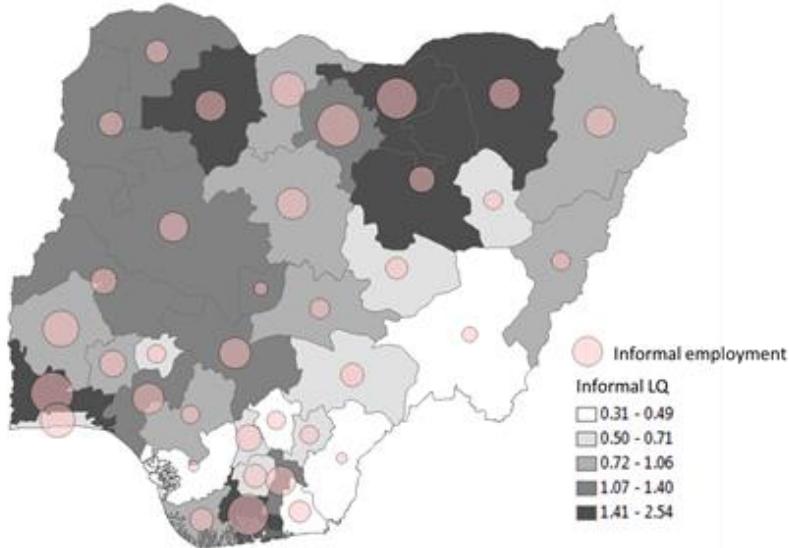
Finally we turn our attention back to the informal sector. While on the whole informal sector workers are proportionally distributed across population centres, with most informal state employment LQs close to 1, a few states stand out as having relatively higher and lower informal employment than the national average of 47 percent formal and 53 percent informal employment.

Zamfara for example has the highest share of informal sector employees, 74 percent (with an informal to formal (I:F) Ratio of 2.9), and an LQ of 2.5 times the national share of informal employment. Five other States stand out with an I:F ratio of 2 or above: Yobe, Bauchi, Jigawa, Ogun and Rivers, with LQs ranging between 1.8 and 2.

The States in the bottom-10 rankings of informal employment LQs are distributed across all geo-political zones except the North West – the zone's state with the lowest LQ is Katsina, with a ratio of 1.0. There is thus a larger share of informal employment in the North West, whose average state LQ is 1.4 (i.e. almost 60 percent of workers are estimated to be in the informal sector in each of the North Western States, compared to 53 percent in the country as a whole).

The difference between the State with the highest share of informal employment and the smallest is between Zamfara, where 74 percent of workers are in the informal sector, and Delta with an informal share of just 26 percent, Lagos' LQ is just 0.5.

**Figure 24 Informal employment LQs by State, 2010**



Source: NBS data, constructed by authors. The CC license does not apply to this figure.

## INDUSTRIAL LOCATION

In light of the concerns regarding the accuracy of the employment data from the NBS, additional analysis was conducted using an original dataset constructed from the national business directory, published by the Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture (NACCIMA). Businesses were categorised into sectors according to the National Accounts Framework and then their location has been mapped to illustrate the geographic distribution of each sector.

Further analysis by city size provides detailed insight into Nigeria's urban economy. Cities have been categorised into five size classes based on UN population data and consistent with the Theme A report. Table 5 below lists the cities in each of the size classes.

**Table 5 List of cities by size class**

City size class	Cities included
5 million or more	Lagos
1 to 5 million	Abuja, Benin City, Ibadan, Kano, Port Harcourt,
500 000 to 1 million	Aba, Ilorin, Jos, Kaduna, Onitsha, Maiduguri, Makurdi, Zaria
300,000 to 500,000	Abakaliki, Abeokuta, Ado-Ekiti, Akure, Bauchi, Calabar, Effon Alaiye, Enugu, Gboko, Gombe, Ife, Ikorodu, Katsina, Lafia, Lokoja, Minna, Nnewi, Ogbomosho, Okene, Okpogho, Ondo, Oshogbo, Owerri, Oyo, Sokoto, Umuahia, Uyo, Warri
Fewer than 300,000 <sup>14</sup>	All others

Source: UN data. The CC license does not apply to this table.

<sup>14</sup> The populations of these settlements are unknown and it is not known either if they are rural or urban.

Even though this analysis provides a unique and valuable insight into the national spatial economy, there are caveats that must be considered. Firstly, the analysis cannot take into account the size of each firm, either the number of employees or the turnover, because this data is not provided in the business directory. Secondly, businesses from the informal sector are not included, as they are, by definition, unregistered.

There are 23,397 firms listed in the directory, including head offices, regional offices and branches. Of these, 66 percent are located in the six biggest cities (with more than one million inhabitants), with 40 percent located in Lagos. In total there are 444 settlements that have at least one registered business, although 79 percent of these have fewer than five and 53 percent have just one. The vast majority (91 percent) of registered businesses are located in cities with a population of more than 300,000. Table 6 provides a summary of the findings.

**Table 6 Number of businesses listed in the directory by city size**

City Size	Number of cities	Number of firms	% share	Avg. no. firms
5 million or more	1	9,331	40%	9,331
1 to 5 million	5	5,997	26%	1,199
500 000 to 1 million	8	2,563	11%	320
300,000 to 500,000	29	3,491	15%	120
Less than 300,000	401	2,015	9%	5
<b>TOTAL</b>	<b>444</b>	<b>23,397</b>	<b>100%</b>	<b>53</b>

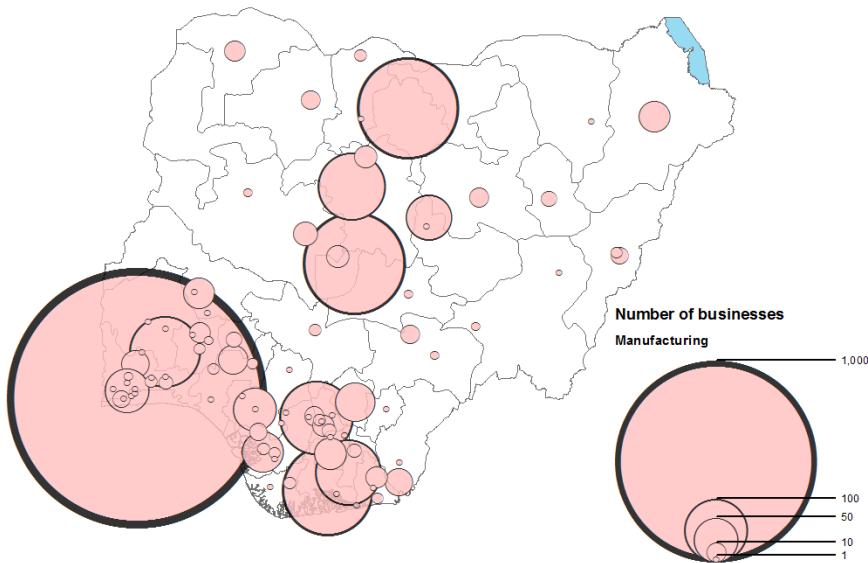
*Source: Authors' calculations using Business Directory data. The CC license does not apply to this table.*

Below, spatial analysis is conducted at the sectoral level for each of the key sectors, including a summary showing the distribution of firms by city size for each sector.

An initial breakdown of the total businesses listed in the directory indicates that there are 3,520 Manufacturing firms, 15 percent of the total. The location of these is shown below in Figure 25, illustrating the geographic distribution of the Manufacturing sector in Nigeria. The city with the highest concentration of Manufacturing firms is Lagos, which alone accounts for just under half (47 percent) of all firms. Kano, the second largest city in the country and historically a centre of manufacturing, is the third largest agglomeration (7 percent).

Perhaps surprisingly, the second concentration is Abuja, with a similar number of Manufacturing businesses registered in the city as in Kano (also 7 percent). Port Harcourt (6 percent) and Onisha (4 percent) are the fourth and fifth largest agglomerations. At the regional level, Manufacturing is agglomerated in cities in the South West and South East and South South geo-political zones. These findings are consistent with the above NBS data analysis.

**Figure 25 Number of Manufacturing businesses by city, 2010**



Source: Business Directory data, constructed by authors. The CC license does not apply to this figure.

Generally, Manufacturing businesses are concentrated in the larger cities, with 87 percent located in the 14 cities with populations over 500,000. Cities with population between 500,000 and 1 million have an average of 61 firms, compared to just 10 for the cities between 300,000 to 500,000. Analysis by city size is summarised in Table 7.

**Table 7 Number of Manufacturing businesses by city size**

City Size	Number of cities	Number of firms	% share	Avg. no. firms
5 million or more	1	1,662	47%	1,662
1 to 5 million	5	903	26%	181
500 000 to 1 million	8	485	14%	61
300,000 to 500,000	29	286	8%	10
Less than 300,000	401	184	5%	0
<b>TOTAL</b>	<b>444</b>	<b>3,520</b>	<b>100%</b>	<b>8</b>

Source: Authors' calculations using Business Directory data. The CC license does not apply to this table.

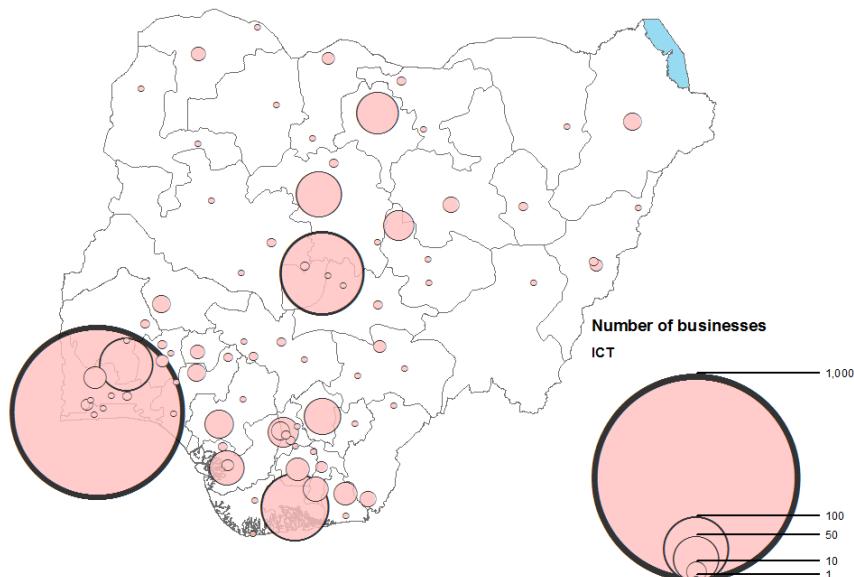
ICT firms account for six percent of listings in the directory. The major agglomerations are in Lagos (48 percent), Abuja (11 percent) and Port Harcourt (8 percent). Other smaller agglomerations are located in Ibadan (5 percent) and Kaduna (3 percent). Even more so than Manufacturing, ICT firms are located in the bigger cities, as Table 8 shows.

**Table 8 Number of ICT businesses by city size**

City Size	Number of cities	Number of firms	% share	Avg. no. firms
5 million or more	1	706	48%	706
1 to 5 million	5	405	28%	81
500 000 to 1 million	8	129	9%	16
300,000 to 500,000	29	158	11%	5
Less than 300,000	401	67	5%	0
<b>TOTAL</b>	<b>444</b>	<b>1,465</b>	<b>100%</b>	<b>3</b>

*Source: Authors' calculations using Business Directory data. The CC license does not apply to this table.*

**Figure 26 Number of ICT businesses by city, 2010**



*Source: Business Directory data, constructed by authors. The CC license does not apply to this figure.*

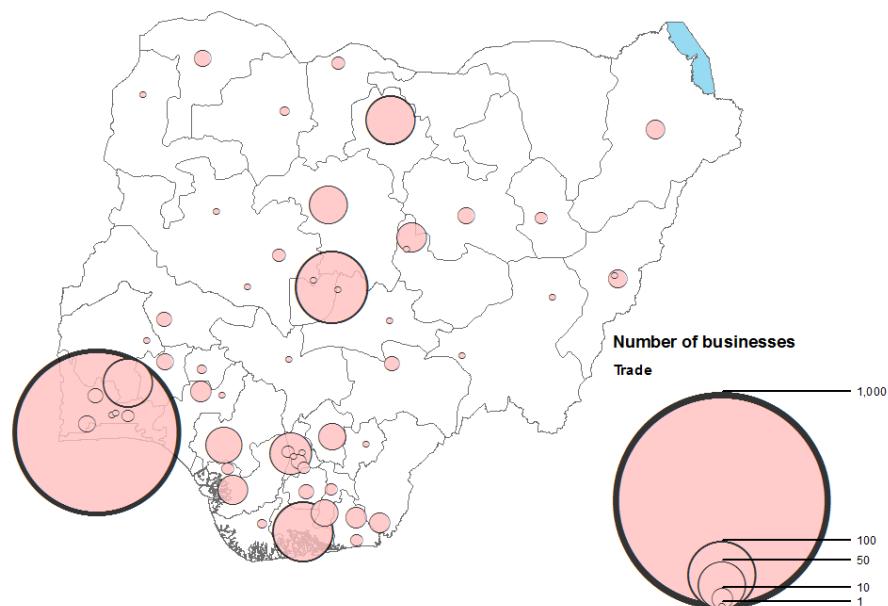
The number of Wholesale & Retail Trade businesses listed in the directory is just 1,211 (5 percent), less than ICT. This is a reflection of the informal nature of the sector. The average number of registered Wholesale & Retail Trade firms in cities with populations from 500,000 to 1 million is just 15, while in cities between 300,000 and 500,000 it is only 4. The main concentrations, as shown in Figure 27, are located in Lagos (49 percent), Abuja (9 percent) and Port Harcourt (7 percent).

**Table 9 Number of Wholesale & Retail Trade businesses by city size**

City Size	Number of cities	Number of firms	% share	Avg. no. firms
5 million or more	1	597	49%	597
1 to 5 million	5	327	27%	65
500 000 to 1 million	8	122	10%	15
300,000 to 500,000	29	120	10%	4
Less than 300,000	401	45	4%	0
<b>TOTAL</b>	<b>444</b>	<b>1,211</b>	<b>100%</b>	<b>3</b>

*Source: Authors' calculations using Business Directory data. The CC license does not apply to this table.*

**Figure 27 Number of Wholesale & Retail Trade businesses by city, 2010**



*Source: Business Directory data, constructed by authors. The CC license does not apply to this figure.*

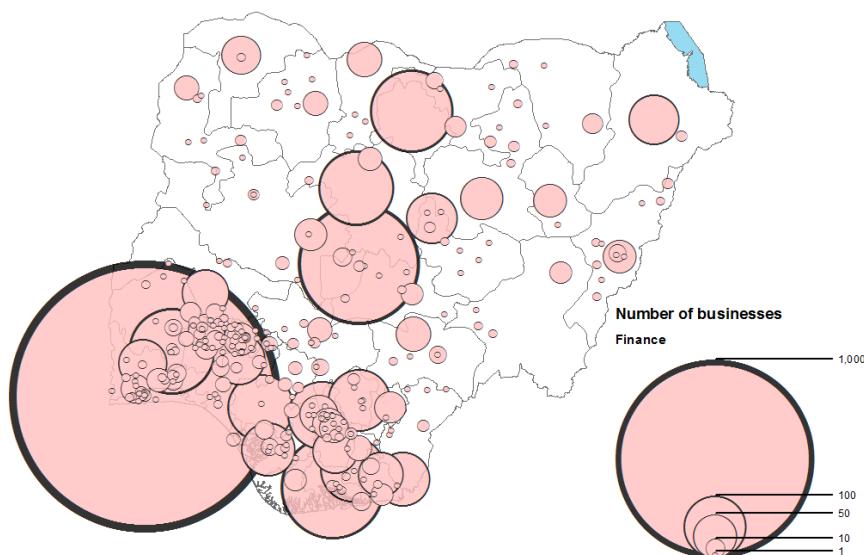
The Finance & Insurance subsector is the most dispersed of all sectors in the business directory, with 317 of the 444 cities (71 percent) having at least one Finance & Insurance business registered there. This is expected given the fact that in the majority of instances these are branches of national or local banks. Nonetheless, there is visible clustering of the sector in cities in the south of the country, as well as in Abuja. The three cities with the highest concentration of firms are Lagos (35 percent), Abuja (7 percent) and Port Harcourt (5 percent), consistent with the above NBS data analysis.

**Table 10 Number of Finance & Insurance businesses by city size**

City Size	Number of cities	Number of firms	% share	Avg. no. firms
5 million or more	1	1,864	35%	1864
1 to 5 million	5	1,140	22%	228
500 000 to 1 million	8	613	12%	77
300,000 to 500,000	29	892	17%	31
Less than 300,000	401	752	14%	2
<b>TOTAL</b>	<b>444</b>	<b>5,261</b>	<b>100%</b>	<b>12</b>

Source: Authors' calculations using Business Directory data. The CC license does not apply to this table.

**Figure 28 Number of Finance & Insurance businesses by city, 2010**



Source: Business Directory data, constructed by authors. The CC license does not apply to this figure.

Accommodation & Food Services businesses account for two percent of listings in the directory. Like Wholesale & Retail Trade, many businesses in this sector are likely to be informal and will not be included in this analysis. There are two main clusters in Lagos (52 percent) and Abuja (18 percent), with smaller clusters in Kaduna (4 percent), Port Harcourt (4 percent), Kano (3 percent) and Ibadan (2 percent). Only 37 cities have a business in the accommodation and food subsector in the directory. Unlike the NBS data, Kano does not stand out as the largest agglomeration.

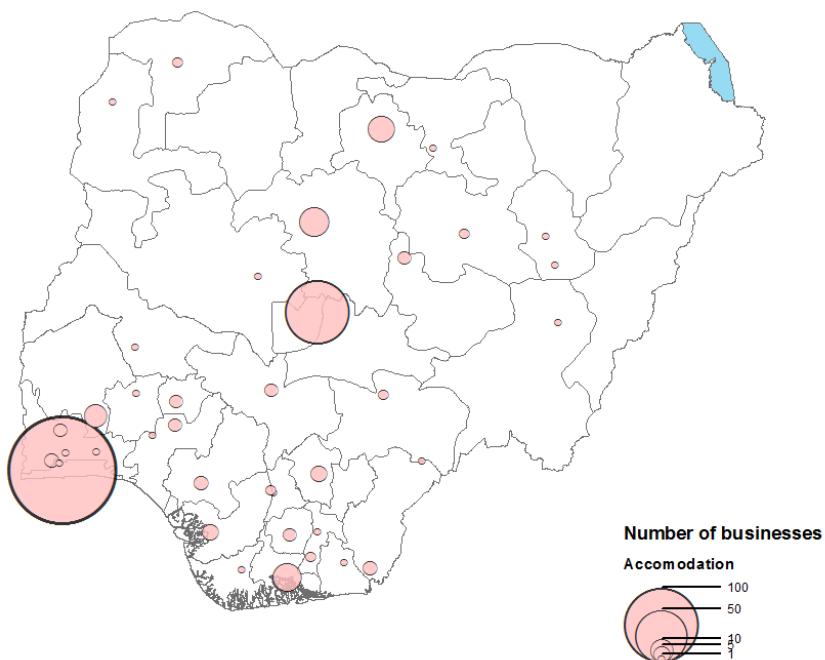
**Table 11 Number of Accommodation & Food businesses by city size**

City Size	Number of cities	Number of firms	% share	Avg. no. firms
5 million or more	1	218	52%	218

1 to 5 million	5	118	28%	24
500 000 to 1 million	8	26	6%	3
300,000 to 500,000	29	38	9%	1
Less than 300,000	401	17	4%	0
<b>TOTAL</b>	<b>444</b>	<b>417</b>	<b>100%</b>	<b>1</b>

Source: Authors' calculations using Business Directory data. The CC license does not apply to this table.

**Figure 29 Number of Accommodation & Food businesses by city, 2010**



Source: Business Directory data, constructed by authors. The CC license does not apply to this figure.

Professional, Scientific & Technical businesses make up seven percent of the total number of businesses in the directory. More than half (57 percent) of these firms are located in Lagos, with a further fifth in the next two largest clusters of Abuja (11 percent) and Port Harcourt (7 percent). The subsector is highly concentrated in large cities; the six cities with populations over 1 million are the location of 82 percent of all professional and scientific firms. These findings are consistent with the NBS data analysed in the previous section.

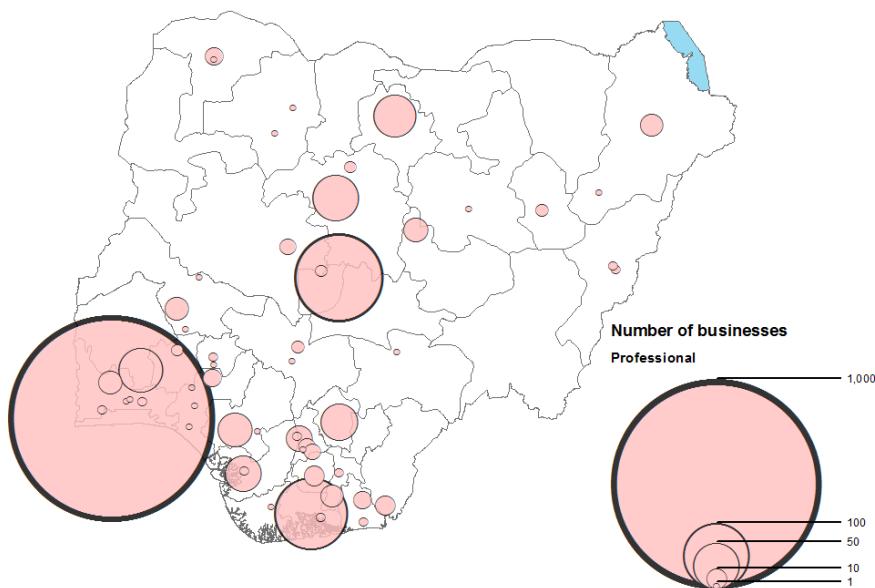
**Table 12 Number of Professional, Scientific & Technical businesses by city size**

City Size	Number of cities	Number of firms	% share	Avg. no. firms
5 million or more	1	218	52%	218
1 to 5 million	5	118	28%	24

500 000 to 1 million	8	26	6%	3
300,000 to 500,000	29	38	9%	1
Less than 300,000	401	17	4%	0
<b>TOTAL</b>	<b>444</b>	<b>417</b>	<b>100%</b>	<b>1</b>

Source: Authors' calculations using Business Directory data. The CC license does not apply to this table.

**Figure 30 Number of Professional, Sci. & Technical businesses by city, 2010**



Source: Business Directory data, constructed by authors. The CC license does not apply to this figure.

The final part of this analysis is presented in Table 13 below, which shows the average sectoral composition of businesses for each of the city size classes. One key finding is that, although they are the location of just 14 percent of total Manufacturing firms, medium-sized cities (500,000 to 1 million) have the highest share of Manufacturing firms (19 percent). This indicates that the manufacturing sector is a key component of medium-sized urban economies in Nigeria. In particular, Onitsha (31 percent) and Aba (30 percent) have a high proportion of Manufacturing firms, while Kaduna has a lower share (19 percent) but a high absolute number of Manufacturing firms (118).

The largest cities (above 1 million) have the highest shares of high value services activities, such as ICT and Professional, Scientific & Technical Services, while for small cities (below 500,000) Public Administration has a larger share of the economy.

**Table 13 Sectoral composition of business listings by city size, 2010**

Settlement Size	Agriculture	Mining and Quarrying	Manufacturing	Electricity	Water Supply	Trade	Construction	Accomodation & Food	Transportation & Storage	ICT	Arts & Entertainment	Finance & Insurance	Real Estate	Professional, Scientific...	Administrative & Support	Public Administration	Education	Health & Social Services	Other Service Activities	Conglomerate
5 million or more	0%	2%	18%	1%	0%	6%	1%	2%	5%	8%	0%	20%	3%	10%	6%	4%	2%	2%	7%	2%
1 to 5 million	0%	3%	15%	2%	0%	5%	2%	2%	6%	7%	0%	19%	3%	7%	6%	13%	2%	2%	5%	2%
500 000 to 1 million	0%	1%	19%	2%	0%	5%	1%	1%	4%	5%	0%	24%	1%	5%	5%	16%	2%	2%	5%	2%
300,000 to 500,000	0%	2%	8%	2%	0%	3%	1%	1%	4%	5%	0%	26%	2%	4%	6%	28%	2%	2%	4%	1%
Less than 300,000	0%	2%	9%	2%	0%	2%	1%	1%	2%	3%	0%	37%	1%	2%	3%	25%	4%	2%	2%	0%
All settlements	0%	2%	15%	2%	0%	5%	1%	2%	5%	6%	0%	22%	2%	7%	6%	13%	2%	2%	5%	2%

Source: Own elaboration. The CC license does not apply to this table.

The analysis in the preceding two sections has identified three main zones where economic activity is concentrated. The first is in the South West – centred around Lagos and the surrounding satellite cities and the corridor to Ibadan. The South West zone is specialised in ICT, Professional, Scientific & Technical Services, Finance & Insurance and Manufacturing.

Urbanisation economies are evident in the high number of firms from all sectors located in Lagos, which accounts for 40 percent of total businesses in the NACCIMA directory. Not all of the activity is concentrated in Lagos, however; Ogun is the most specialised and has the highest number of workers in both ICT and Professional, Scientific & Technical Services.

The second zone is an industrial corridor running from Abuja to Kano in the north of the country, including Kaduna and Jos. Kano is the second largest city and historically the manufacturing hub of the country, while Abuja is an emerging industrial centre, with very little known about the nature of manufacturing in the city. Between them these four cities account for a fifth of Manufacturing firms in the business directory.

The final zone is in the South-East, primarily the cities of Port Harcourt, Onitsha and Aba. These three cities between them account for 13 percent of Manufacturing businesses in the directory. Port Harcourt also has the third highest number of total businesses in the directory.

The present spatial pattern of agglomeration is similar that of the post-independence period outlined at the start of this chapter; activity remains concentrated in the original four zones identified by Iloeje (1981), though it is now more concentrated in three of these and some of the cities in the zones have declined or risen in relative importance. There remains very little economic activity in the North East and North West of the country. This is reflected in the low GDP per capita and high poverty headcount in these areas.

A key finding from the analysis of the spatial economy is the prevalence of manufacturing in the medium-sized cities (500,000 to 1 million). This is due primarily to the existence of establishments in the cities of Aba, Ilorin, Onitsha, Kaduna and Jos. Given the relatively small size of these cities, these may be manufacturing firms in the same or inter-related subsectors, driven by localisation economies. Further research into the factors that have enabled these clusters to develop can inform urban economic development policy, with the aim to replicate the process in other similar cities.

# ECONOMIC ORGANISATION AND PERFORMANCE

This section assesses economic performance in the formal or informal, manufacturing, or service sectors, and the contribution of city infrastructures to productivity enhancement.

## BUSINESS ENVIRONMENT, COMPETITIVENESS AND PRODUCTIVITY

It is often pointed out that the Nigerian urban business environment discourages investment and frustrates competitiveness. As major constraints to private sector growth and competitiveness, the literature identifies inadequate infrastructure, limited access to credit, inadequate training and skills and weak economic governance (AfDB, 2013).

Although wages in Nigeria are lower than many of its competitors, the low productivity of Nigerian workers means that they produce less, on average, than the same competitors, reducing the country's competitiveness in the global economy.

Labour productivity did grow by 3.4 percent per year from 2010-2013 and now contributes 55 percent of GDP growth, compared to 42 and 3 percent for demographic and employment effects respectively (Leke et al., 2014).

Despite these recent improvements, Nigeria still lags behind other major developing and SSA countries. In 2013, output per worker was \$10,300 per year – 57 percent less than the average of seven large developing economies (Leke et al., 2014), while a 2009 UNIDO study revealed that the manufacturing productivity of Nigerian workers was just 10 percent of that in Botswana and 50 percent of that of Ghana and Kenya (Larossi et al., 2009). Nigerian productivity lags behind South Africa in every sector, except natural resources. In 2010, manufacturing output per worker in Nigeria was \$5,200 compared to \$27,000 in South Africa – less than a fifth.

The biggest constraint to productivity in Nigeria, as perceived by businesses, is power. Almost all Nigerian firms experience power outages, averaging 8 hours per calendar day which results in indirect costs equivalent to 4.3 percent of sales for manufacturing firms and 5.3 percent for retail firms (World Bank, 2011). To combat this situation, the majority of firms (88 percent) have their own generators, which adds significantly to their operating costs. Manufacturing firms reported that approximately 69 percent of their total electrical utilisation comes not from the public grid, but from their own generators, with large manufacturers more dependent than smaller ones on generator power. The cost of acquiring and maintaining a generator amounts to 9 percent of the total value of a firm's equipment and machinery and 13 percent of a firm's operating expenses (World Bank, 2011).

Transport problems are also a significant problem in Nigeria, accounting for annual sales losses of 2.4 percent (World Bank, 2011). Road transport is the primary means of transport in the country and poor quality roads and congestion are the main cause of these losses. The cost and amount of time to import taken to process imports and exports is also higher than in other comparable countries.

Access to finance and, to a lesser extent, the cost of finance are perceived by Nigerian firms as the second most important constraint to doing business. About 52 percent of firm managers said that access to finance was a serious constraint and 46 percent the same about the cost of financing (World Bank, 2011). Nigeria's businesses are starved of capital: only about 12 percent of Nigerian firms have an overdraft facility and only about 14 percent have an overdraft or loan. Collateral was also more likely to be required to obtain a loan and the amount of collateral required as a ratio of the loan was higher than comparator countries (at 170 percent of the value of the loan). Even when firms do manage to obtain a loan, the time they have to repay it is shorter than in other comparator countries.

The formal financial sector is used for just one percent of businesses' financial needs, highlighting the inadequacy of Nigeria's financial infrastructure. This obstacle, however, does not affect all firms equally; the smaller the firm, the more of an obstacle access to finance is (World Bank, 2011).

These findings are substantiated by interviews with business leaders, representing the SME sector, who highlighted the following obstacles in relation to the business climate:

- The multiplicity of taxes (the uncertainty – rather than transparency – makes life difficult)
- Power (the high costs of generators)
- Access to financing (even more than high interest rates which SMEs can afford to pay due to the very short term nature of most financial needs).

Investment in social infrastructure, such as education/training and health facilities, can also contribute to increased productivity for firms, as healthier and more skilled workers are more productive. Studies have shown that investments in physical infrastructure (roads, power etc.) are more effective when combined with human capital interventions (see Canning and Bennathan, 2000, and Palanivel, 2004, cited in Ogun, 2010).

Just over a quarter of firms provide training in Nigeria, compared to more than half of the firms in Brazil, 43% in South Africa and nearly 40 percent in Kenya. Firms in Nigeria that do provide training, though, compare favorably with comparator countries with respect to the proportion of the skilled workforce that is trained (World Bank, 2011).

The informal nature of many businesses in urban Nigeria is a major factor in the low productivity of workers. Some 32 million workers are employed in micro-businesses, the vast majority of which are informal enterprises. These informal enterprises operate outside the regulatory system, which constrains productivity in several ways.

Firstly, Nigeria's ineffectual judicial system, combined with the dubious legality of many businesses, means that contracts are difficult to enforce

and owners must instead rely on social trust. This limits the size and nature of the transactions that businesses can contemplate. Hiring without contracts also reduces productivity, as companies are less willing to invest in training for workers who have no formal obligations to the business.

Other constraints on productivity relate to the use of revenue by informal businesses. Revenue from informal enterprises is less likely to be retained in the business, limiting the opportunities for improvements in productivity from capital investments (Leke et al., 2014). Informal enterprises also avoid paying taxes, which reduces the budget for local authorities to invest in infrastructure improvements.

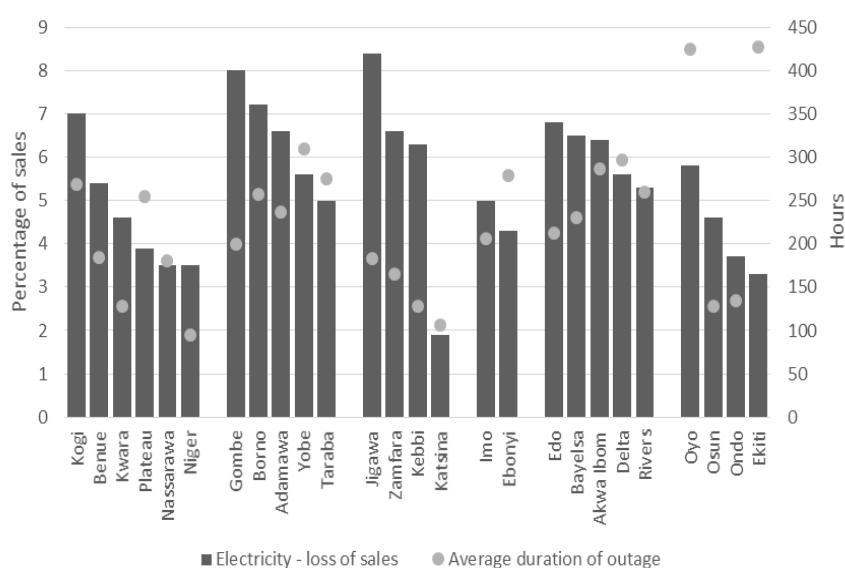
Addressing these deficiencies is vital to economic development in Nigeria, as increased productivity results in increasing demand for labour, simultaneously raising employment and wages.

## Regional variations in business environment

As Figures 31-33 below show, there are significant differences in the business environment between states. For example, in the average total duration of power outages in Niger was just 95 hours compared to the national average of 239 and 427 in Ekiti, while the percentage of firms with a line or credit or bank loan was 32 percent in Jigawa compared with 1 percent in Ondo. Consequently, productivity, wages and output vary considerably across the country.

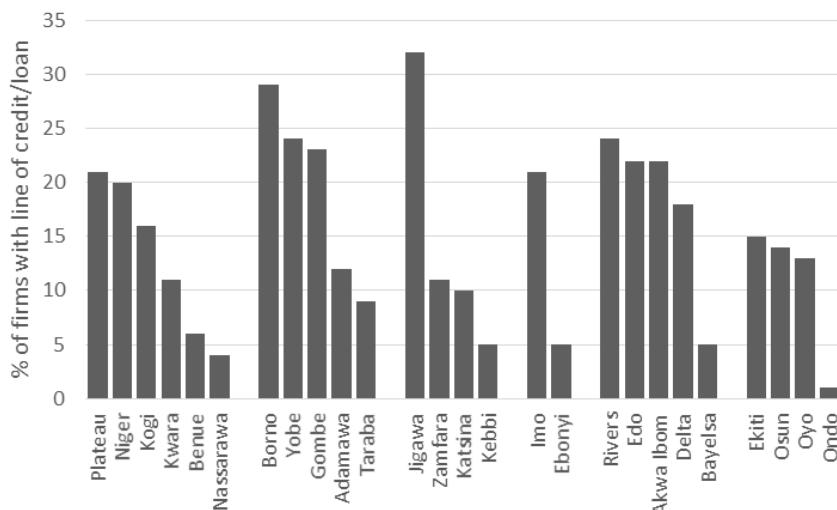
However, if the data on the business environment from the World Bank (2011) report illustrated below is examined in the context of the GDP and GDP per capita map, there is little correlation between states with a high GDP per capita and those with a seemingly hospitable business environment. For example, Katsina has less than half the average duration of power outages and losses due to transport, yet it also has one of the lowest GDP per capita figures in the country. Conversely, Oyo has higher than average duration of power outages and losses due to power and transport, but a higher than average GDP per capita.

**Figure 31 Sales losses and duration of power outages, 26 states, 2010**



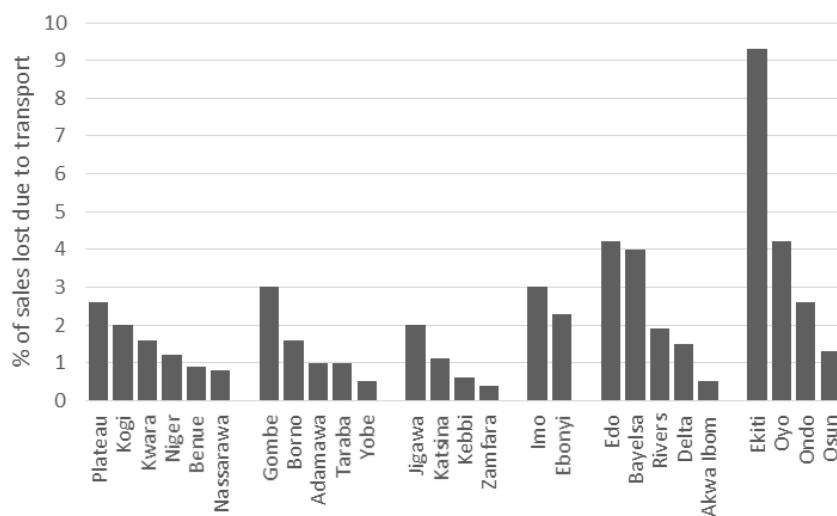
Source: Copyright © World Bank, 2011. The CC license does not apply to this figure.

**Figure 32 Percentage of firms with line of credit or loan, 26 states, 2010**



Source: Copyright © World Bank, 2011. The CC license does not apply to this figure.

**Figure 33 Percentage of sales lost due to transport, 26 states, 2010**



Source: Copyright © World Bank, 2011. The CC license does not apply to this figure.

## CLUSTER DEVELOPMENT IN NIGERIA

The term cluster in the Nigerian policy discourse usually refers to the fostering of co-related industrial firms through the use of special economic zones (SEZs) in order to drive growth in several key sectors (Chete et al., 2013; Iwuagwu, 2011). These special economic zones have generally taken the form of export processing zones (EPZs), focusing on the development of manufacturing for export.

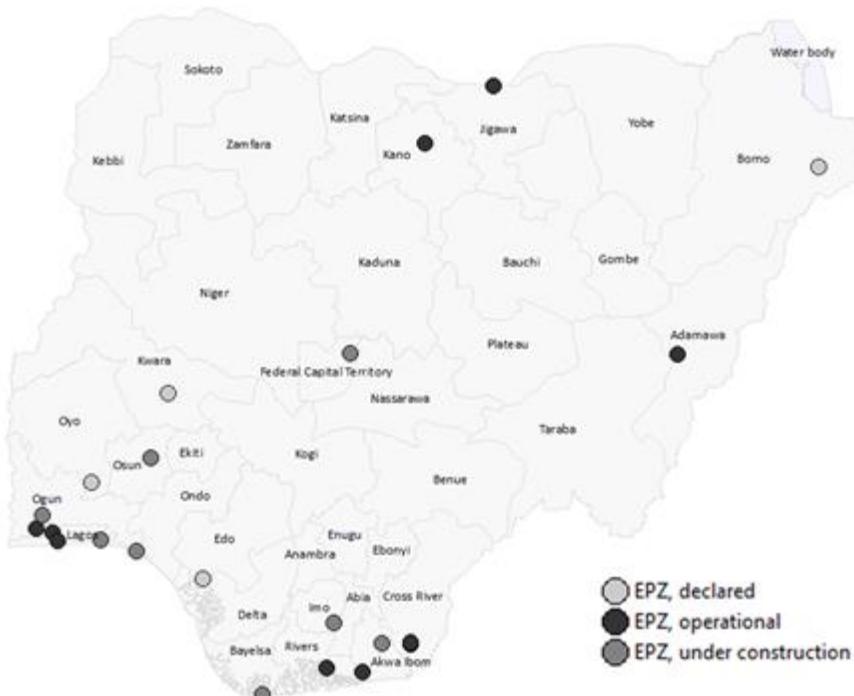
Chete et al. (2013) have analysed the firms located within Nigeria's EPZs in order to assess the potential agglomeration benefits from clustering. They find that, in comparison to firms in the rest of the country, EPZ firms employ more than two and a half times as many workers. Additionally, they employ a higher ratio of management and non-production workers,

though proportionally fewer skilled workers. Firms in EPZs are also more productive than their non-EPZ counterparts in terms of both labour and capital productivity, while capital intensity is lower. This is reflected in the higher wages paid to workers in all categories. This higher productivity is achieved despite higher average annual overhead costs for electricity, fuel, water, transportation and communication services.

However, when control variables are included in the final model for analysis, it is found that location in an EPZ has a significant and negative effect on the level of technical efficiency<sup>15</sup> of a firm. The most plausible explanation for this finding is that many EPZs in Nigeria are, as yet, not fully developed and much of the infrastructure required to drive production remains unavailable or chronically inefficient.

Figure 34 below shows the EPZs analysed by Chete et al. (2013), while description of each EPZ can be found in Annex 2.

**Figure 34 Location of EPZs in Nigeria**



Source: Chete et al., 2013 data, constructed by authors. The CC license does not apply to this figure.

Evidence from the World Bank Investment Climate Analysis survey (World Bank, 2011) reveals that firms in two EPZs, Calabar and Onne, operate in a considerably more attractive environment than those faced by firms outside the free zones, substantially lowering their indirect costs resulting from the poor investment climate. However, while the conditions may be better than on average outside the zone, they are still worse than those faced by firms operating in other comparable countries.

<sup>15</sup> Technical efficiency is the effectiveness with which a given set of inputs is used to produce an output. A firm is said to be technically efficient if a firm is producing the maximum output from the minimum quantity of inputs, such as labor, capital and technology.

Farole and Moberg (2014) attribute the problems with African SEZs to the political economy of the SEZ schemes, specifically problems with distortions from political incentives, coordination failures from institutional incentives and inadequate knowledge. Examples of political economy failures from SEZs in Nigeria are outlined below.

SEZs are often seen by policy makers as attractive showcases for progress. This provides the incentive to dismiss other land-uses in favour of SEZs and artificially raises the value of land designated as an SEZ, leading to land grabbing, corrupt land deals and oversupply of SEZ land. Nigeria faced protests from local communities over land compensation and resettlement around the Lekki Free Zone, causing delays to the project. Moreover, the political incentive to showcase the Lekki zone as soon as possible led to a misallocation of resources toward promotion of the zone over successful implementation of the project. Thus, the Lekki zone has been promoted in the media for almost a decade as a success story to boost the economy without yet coming to fruition (Farole and Moberg, 2014).

Successful implementation of a SEZ requires institutions with vastly different objectives and incentives to work towards a common goal. In Nigeria, disputes between customs and SEZ programmes have been going on for many years. The EPZ Authority, established in 1992, was in conflict for many years with the Oil & Gas Free Zone Authority, established in 1996, over which of the organisations had the authority over a number of important activities. In the case of the Tinapa business and leisure resort, the plan was for a duty exemption of \$5,000 per person in the shopping centre; in the end, customs allowed only \$330, fundamentally undermining the business case for the zone. Finally, institutional competition and coordination failures in the Calabar Free Trade Zone led to a situation where the zone was ultimately unconnected to the Calabar port, which established its own SEZ, and then failed to agree to dredge the port, so that goods shipped to and from Calabar had to go by road via Lagos (Farole and Moberg, 2014).

In summary, a number of factors must come together simultaneously to make a successful SEZ, including location, policy, strategy and planning, the legal and regulatory framework, customs, administrative capacity, management, as well as political will and long-term commitment. To date, political economy problems have largely undermined the success of SEZs in Nigeria by distorting one or more of these factors.

## **Characteristics of subsectoral-level clusters**

Clusters – more technically defined as interlinked, subsectoral or inter-sectoral spatial concentrations of firms – can have a positive impact in reducing the impact of the business environment deficiencies discussed above for firms, through the sharing of limited resources. In a study of agglomeration economies in 12 clusters in Lagos, Adejomo (2014) reveals significant benefits to firms as a result of agglomeration in successive years between 2008 and 2012. The most significant benefits (cost savings) resulted from access to financial institutions, followed by shared transportation services and shared utilities, such as power and water supply.

A number of other studies have identified subsectoral-level clusters in Nigeria (see Chete, 2014; Dibie and Okonkwo, 2000; Meagher, 2011; Oyelaran-Oyeyinka, 2001), which are primarily found at the sub-metropolitan level, in other words in specific areas within cities. Such clusters can facilitate inter- and intra-firm linkages, better connectivity to market(s) (both domestic and regional/international), and improved provision of infrastructure (primarily power, roads and ICT). Access to credit and infrastructure remain major constraints nonetheless. Electricity, for example, is in most cases only supplied through private generators, ICT services are poor and tariffs high, and banks are reluctant to provide credit (Chette, 2014; Dibie and Okonkwo, 2000). That said, clusters in Nigeria share some distinctive characteristics.

The existence or establishment of active business associations and social/popular networks has been a common feature of many successful clusters in Nigeria. For example, key success factors of the Nnewi Automotive Parts Industrial Cluster include the active participation of private industry associations such as Nnewi Chamber of Commerce, Industry, Mines and Agriculture and the Nigerian Association of Small-scale Industries (Chette, 2014).

In the Otigba Computer Village, the Computer and Allied Products Association of Nigeria (CAPDAN) gained support from the local government that has, among others, facilitated property access and rental and licensing and refrained from heavy-handed inspection and licensing practices. At the Onitsha plastic cluster, the industries are managed by the Industrial Economy Development Agency, a local group that provides planning, research and development. Other areas of significant cooperation relate to technology and market support, security and infrastructure maintenance (Chette, 2014).

The weaving cluster in the city of Ilorin, located in the Yoruba Muslim area of western Nigeria, and the shoe and garment clusters in the city of Aba, in the Igbo Christian area of eastern Nigeria, despite the contrasting characteristics of these informal enterprise clusters, have all made use of indigenous ethnic and religious institutions to generate expanding employment, enterprise development and international production and distribution networks in the face of state neglect and poor infrastructure provision (Meagher, 2011). In addition to strong enterprise networks, business owners are embedded in neighborhood and hometown associations, local political associations, social clubs, religious societies, and cluster associations, which provide mechanisms for influencing local decision-making structures (Meagher, 2011).

The contributions of skills, learning spillovers and entrepreneurship in creating opportunity and innovation is also key. Investment in training and capacity to imitate and assimilate foreign technology has been critical factor for the success of the abovementioned Nnewi Automotive Parts Industrial Cluster. Since the mid-1970s, local traders in Nnewi have transformed themselves into manufacturers of automobile parts also through close linkages to technology suppliers in Taiwan Province of China (Chette, adapted from Oyelaran-Oyeyinka, 1997). Acquisition of skills by workers has thus also been the result of learning by-doing, especially during equipment installation and test running, and through inter-firm

linkages with foreign technology suppliers. The relatively high educational level of the workforce at the Otigba Computer Village is another example (Chette, Adapted from Oyelaran-Oyeyinka, 1997). At the Onitsa plastic cluster, the Industrial Economy Development Agency also provides training to members of the cluster.

Significant inter-and intra-firm linkages exist specifically with large firms. The Otigba Computer Village in Lagos concentrates computer hardware assembly businesses and serves particularly the Lagos industrial base, led by the oil and financial sectors. Linkages are also reflected in the appetite for the provision of supplier credits among firms in the cluster, as well as know-how exchange and joint warehousing, thus reducing production costs (Chette, adapted from Oyelaran-Oyeyinka, 1997).

Adewuyi and Oyejide (2012) also found that in contrary to the widespread view, there is a clear evidence for the existence of linkages – at least in fabrication and construction; well-construction and completion, and control systems and ICT subsectors. Firms in the textiles industry in Kano located in the city to take advantage of the close proximity to cotton producers in the region. Leather manufacturers in Kano located in close proximity to tanneries. Oil and gas services locate in the oil producing regions.

There is also evidence of specialisation amongst firms in spontaneous informal clusters, which enhances productivity. For example, in the Aba shoe and garment cluster, shoemakers firstly specialise in the type of shoe they produce: men's, ladies' and children's. For all types of shoe, the production process is then further subdivided into further specialisations: 'shoemakers' have only simple hand tools, while 'shoe tailors' are equipped with sewing machines, 'smoothers' with grinding machines and generators, 'pressers' emboss designs on soles and uppers, 'printers' stencil designs and labels and 'sprayers' dye shoes. Dividing the production process in this way allows firms access to a range of capital machinery that an individual firm would be unable to afford (Meagher, 2010).

Firms in informal clusters also engage in workplace training in the form of apprenticeships. The Aba shoe and garment cluster apprenticeship system offers considerable benefits including training in production skills, induction into supply, credit and marketing networks and socialisation into relevant occupational values relating to quality and work ethics (Meagher, 2010). Apprenticeships offered in cluster economies are an effective way of compensating for the often low education and general skill level of Nigerian school leavers.

Socio-cultural factors have played an important role in the development of informal clusters in Nigeria. Investment decisions by firms, and the subsequent formation of the Nnewi cluster, were strongly predicated on ethnic and family, as well as geographic factors (Oyelaran-Oyeyinka, 2001). A shared socio-cultural identity provides a basis for trust and reciprocity in an informal setting. Socio-cultural factors were also a significant factor in the development of the shoe and garment clusters in Aba, which were pioneered by migrants from two distinct Igbo communities. Informal occupational cohesion was maintained through socio-cultural and family connections between neighbouring groups, with newcomers integrated through the apprenticeship system (Meagher, 2011).

# THE POLICY AND INSTITUTIONAL ENVIRONMENT

This third section of the report provides a broad picture of policy initiatives in the industrial sector and the overall economic development policy and institutional environment at the national, state and local levels.

## NATIONAL ECONOMIC DEVELOPMENT POLICY AND PROGRAMMES

Nigeria's economic development policy environment can be divided into distinct periods, each of which is characterised by significant policy shifts.

When Nigeria attained independence from Great Britain in 1960 it had no clear policy for economic development (Dibie and Okonkwo, 2000). The economy was predominantly agricultural and largely depended on the export of crops and raw materials. In the decades which followed several policy initiatives tried to achieve significant structural transformation of the economy (Adeoti, 2011).

In post-independence Nigeria an import-intensive manufacturing sector emerged. The First National Development Plan (NDP) in the period 1962 to 1968 adopted import substitution industrialisation (ISI) as the main method to reduce foreign dependency and modernise the economy. The period also witnessed the commissioning of infrastructure projects to support industrial development.

After a recognition that with ISI there had been a low level of inter-linkages within the industrial sector and with the rest of the economy, the second and third NDPs (1970-1974 and 1975-1980 respectively) focused on upgrading the local production of intermediate and capital goods but the real challenge was the fact that there was no such capacity (Iweriebor, 2004). In the early 1980s the fourth NDP (1981-1985) took more concrete steps for establishing a capital goods sector.

Poor economic management and the high dependence on imported inputs by the import-substituting industries, coupled with the collapse of the oil prices on the international markets, resulted in the economic recession of the 1980s, which also had profound impacts on the Nigerian manufacturing industry (Adeoti, 2011).

In 1986, Nigeria adopted a World Bank and International Monetary Fund (IMF)-led structural adjustment programme (SAP) in an attempt to revive its economy and return to growth. During this time, government interventionist approaches were discarded for economic liberalisation (Adeoti, 2011; Ogunkola, 2002). While the SAP recognised that a viable productive base would be created through the revitalisation of the country's industries, it has been argued that SAP reforms had in fact a

negative impact on industrial performance and economic development (Ogunkola, 2002).

The economic policies implemented in the four decades to the end of 1990s failed to move the economy away from the structure inherited at independence (Chete et al., 2014). In the 2000s, the government accordingly moved to implement a series of reforms and presidential initiatives in all sectors of the economy with the aim to increase growth and diversification.

The first, the National Empowerment and Economic Development Strategy (NEEDS), which is Nigeria's Poverty Reduction Strategy Paper (PRSP), was launched in 2000 (with the second in 2004). NEEDS is a reform-based plan for economic development. Its strategic direction mainly focuses on privatisation, deregulation and liberalisation of key sectors, the improvement of infrastructural provision, notably in the power and roads sectors, and the coordination of national sectoral development strategies for agriculture and industry (National Planning Commission, 2004). NEEDS also provides the basis for the elaboration of State and Local Economic Empowerment and Development Strategies (SEEDS and LEEDS).

More recently policies and programmes such as the National Vision 20:2020 and the Transformation Agenda (TA 2011-2015) have been adopted by the Nigerian Government. The country's long-term development agenda as articulated in the Vision 20:2020 focuses on three main pillars: (i) guaranteeing the productivity and wellbeing of the people (with a focus on human capital); (ii) optimising the key sources of economic growth (through improved competitiveness, industrial development, and domestic and foreign trade, among others); and (iii) fostering sustainable and inclusive socio-economic development (Federal Republic of Nigeria, 2010).

Vision 20:2020 also identifies growth drivers within the economy: (i) agriculture and food processing; (ii) manufacturing and SMEs; (iii) oil and gas (downstream and upstream activities); (iv) trade and commerce; and (v) culture and tourism, which include the film and entertainment industry.

It also emphasises the need for a clear regional development strategy in order to achieve a more balanced spatial socio-economic development. Specific cities within each region, Vision 20:2020 stipulates, can be developed into regional growth centres which can also then enhance the growth of secondary urban centres within respective regions or states.

The Government's medium-term strategy for achieving these goals is articulated in the Transformation Agenda (TA). The TA places special emphasis on creating employment, reducing poverty and inequality, and improving and sustaining the wellbeing of all Nigerians.

In the urban sector, the revised 2012 National Urban Development Policy (NUDP) states the goals, objectives and strategies for achieving sustainable urban development. The policy covers many critical and relevant issues and challenges facing urban economic development in Nigeria (Federal Ministry of Works and Housing, 2012). NUDP emphasises cities as "*engines of growth*", thus recognising their role for creating economic development and growth. Like Vision 20:2020, NUDP also calls for balanced urban and regional development across the country.

While both NEEDS and the Vision 20:2020 cover broad cross-cutting issues relevant to urban economic growth, no mention is made about how local and regional economic development will take place. NUPD on the other hand does consider how to best promote urban economic growth and development but does not set actual new objectives for local and regional economic development. At the same time, there is lack of levers for the Federal government to drive this agenda, given that much of NUPD's policy imperatives consist of State mandates.

The role of international development partners in Nigeria has also been important to achieve economic development goals. Nigeria's three main multilateral and bilateral development partners include the World Bank, the African Development Bank (AFDB) and the UK Department for International Development (DFID). Their financial contributions and sectoral focus has varied significantly over time but development assistance appears to have increased in recent years. The World Bank's Country Partnership Strategy (CPS) for the period 2014-17 is aligned with Nigeria's long term development agenda as outlined in Vision 20:2020, and its medium-term strategy, the Transformation Agenda (2011-15). It was prepared in partnership with DFID, AFDB, and the United States Agency for International Development (USAID), and focuses on four areas: (i) mitigating the impact of the global economic crisis; (ii) improving governance, (iii) maintaining non-oil growth; and (iv) promoting human development (World Bank, 2014b). The World Bank also retains a strong emphasis on urban issues in the CPS, notably in relation to economic growth.

As mentioned above, the Nigerian Government has also been implementing a number of presidential initiatives in key sectors of the economy. Recognising the importance of power in overcoming constraints to economic growth and development, the Nigerian Government placed power sector reform on the top of its agenda (as stipulated in the 2010 Roadmap for Power Sector Reform). The power sector reform is considered the most comprehensive and complex ever undertaken in Africa. Its first stage – the privatisation of generation and distribution companies – has been successfully completed but increased availability of power has still to be realised, and critical market development hurdles remain to be overcome.

Approved in 2013, the National Integrated Infrastructure Master Plan (NIIMP) is a 30-year plan for accelerating infrastructure development to be implemented by 10-year operational plans and 5-year medium-term plans. It presents a comprehensive approach to address Nigeria's infrastructure deficits and covers various sectors, including energy, transport, housing, water, social infrastructure, and information and communication technology.

The more recent policy initiative in the industrial sector is the 2014 Nigeria Industrial Revolution Plan (NIRP) which aims to accelerate industrial development and increase the contribution of manufacturing to GDP to more than 10 percent by 2017. The plan facilitates links to related policies and other development plans, including among others to the National Integrated Infrastructure Master Plan.

## INDUSTRIAL POLICY

Policy priorities in the past have played a major role in the locational choices of industrial activity in Nigeria. Policies such as those in the 1960s and 1970s, discussed above, which aimed at fostering greater dispersion of economic activity in order to reduce regional inequalities appeared to be insufficient from an economic perspective (Chete et al., 2013). The poor performance and efficiency of Nigerian industries may thus be partly explained by the dispersion of industrial activity without regard to local economic considerations (Iwuagwu, 2011).

Table 14 below lists current industrial policy initiatives.

**Table 14 Economic policy initiatives in the industrial sector**

Policy	Year	Response
National Policy on Micro, Small and Medium Enterprises	2007	Derived from the NEEDS strategy, it aims to support enterprises to move up their value chains. Moreover, emphasises targeted measures to provide for different MSME categories and segments.
Nigeria Industrial Revolution Plan	2014	Aims to build competitive advantage, broaden the scope of industry, and accelerate expansion of the manufacturing sector.

Sources: With information collected Iwuagwu, 2011; Nigeria Industrial Revolution Plan, 2014; SMEDAN, 2007; GTZ, 2008; and Ikpeze, 2004. The CC license does not apply to this table.

The more recent policy initiative in the industrial sector is the 2014 Nigeria Industrial Revolution Plan (NIRP) which aims to accelerate industrial development and increase the contribution of manufacturing to GDP to more than 10 percent by 2017. The plan facilitates links to related policies and other development plans, including amongst others Nigeria's Trade Policy, the National Integrated Infrastructure Master Plan, the Agriculture Transformation Agenda, the Mining Strategy, the Science and Technology Plan and the Transportation Strategy. It also adopts a cluster approach to promote backward integration in key sectors and its scope covers entire value chains.

Table 15 below illustrates examples of backward integration in key sectors as considered in the policy.

**Table 15 Examples of backward integration in key sectors**

Industry	Value chain considerations
Sugar	Sugarcane production (outgrowing), cane processing and sugar refining, packaging and domestic distribution. It also includes alternative outputs and by-products of the sugar

	value-chain, such as ethanol, animal feeds and electric power generation.
Cement	Includes quarrying, clinker production, grinding, bagging, distribution, and exports of cement. The primary input for the production of cement is limestone. Secondary materials are gypsum, shale or clay, and fuel oil or coal. The objective for the cement industry is to sustain the success so far and seek alternative uses of cement to boost local demand, and become a significant net exporter of cement to the region.
Metal and Solid Minerals	44 solid minerals proven to exist in sufficient quantities to support large scale midstream and downstream industrial activities. These include Iron ore, manganese, coal, limestone, and bentonite. The objective for the Metal and Solid Minerals industry is to promote expansion of existing downstream processing and assembly capacity in the country, and then gradually facilitate backward integration into midstream/upstream processing activities starting from solid minerals.
Auto Assembly	Promotion of backward integration by encouraging dealers/manufacturers to build-up assembly and component manufacturing capacity in Nigeria. Companies with strong commitment to assemble and manufacture certain quantities locally, will be able to import other quantities to fill the demand/supply gap in the country (at concessionary rates). This will ensure car prices do not unduly rise in the country.
Basic Metals/Steel	Investment promotion downstream with gradual backward integration upstream. Promotion of more investments in large scale downstream rolling mills (cold and hot rolled), near known mineral deposits and/or near port areas. Gradual backward integration upstream to smelting processes.
Light manufacturing	Encourage value chain partnerships to link medium and large scale businesses with MSMEs. This initiative will cluster MSMEs around specific products and services, and work with the larger corporates to explore ways of domesticating specific items currently imported within their value chains.

Source: Nigeria Industrial Revolution Plan (NIRP). The CC license does not apply to this table.

While in the past the various stages of production needed to take place near each other, reduction in trade barriers, tariffs, transport costs, communication and other costs, means that stages of production can be separated and located at the lowest-cost locations. This fragmentation of the global value chains may call for a need to identify a 'slice' along the

value chain rather than comparative advantage in the entire chain (Naudé and Szirmai, 2013).

As seen above, Nigeria's recent policy directions and plans have favoured the development of clusters and use of economic zones to drive growth in key sectors, notably in the manufacturing and processing industries (Chete et al., 2013; Iwuagwu, 2011). This approach revolves around five aspects: free trade zones (FTZs), industrial parks, industrial clusters, enterprise zones and incubators.

Cluster development is not a new approach to industrial development in Nigeria. However, unlike the policies of the past, the 2007 policy emphasises the role of the private sector and is in fact based to a large extent on public-private partnerships (PPPs). The government's role in the process is to identify and locate the clusters, and to provide infrastructure and incentives. In addition, contrary to policies of the past, the current policy does not attempt to foster more dispersion of economic activities in order to reduce regional inequalities (Chete et al., 2013). This is a particularly important policy shift given that evidence from other developing countries suggest that regional incentives have had limited results in terms of stimulating industrial growth in lagging regions (Conroy, 1973; Parr, 1999; Chakravorty and Lall, 2007).

Many issues are critical to the success or failure of industrial policy and programmes. These include the development of critical infrastructure (notably power and transport), corruption (because of its implications for investment and FDI flows into the country) and national security (Chete et al., 2013).

## LOCAL AND REGIONAL ECONOMIC DEVELOPMENT INITIATIVES

In general terms, local economic development policy and plans focus on strategies aiming at enhancing the competitiveness of local economies. They encompass a range of disciplines including physical planning and economics, and involve the full range of stakeholders at the local level (government, private sector and local communities). Such plans tend to focus on attracting investment, on the one hand, and supporting businesses on the other, thereby contributing to economic growth and employment creation at the local level.

Adoption of local and regional economic development policy is not common practice in Nigeria, although state governments and local government areas (LGAs) have been responding to economic development needs in many ways (Jelili et al., 2008). State governments, and local governments, have considered local and regional economic development issues in their State Economic Empowerment and Development Strategies (SEEDS) and Local Economic Empowerment and Development Strategies (LEEDS) respectively.

The relative decentralised autonomy within which Nigerian states operate has a number of positive features that can potentially support local and regional economic development. Such degrees of autonomy have also

been consistent with rapid economic growth and development in countries globally, notably the United States and China (World Bank, 2014b).

As well as preparing SEEDs, state governments in particular, have been preparing, amongst others, strategies, policies and programmes concerned with economic development issues. Table 16 below is a comprehensive list of relevant, state-led, economic development initiatives.

**Table 16 Categories of state-led economic development policies and programmes**

Type	State
1	<ul style="list-style-type: none"> <li>▪ Our Benue Our Future</li> <li>▪ Cross River State Vision 2020 (2009 – 2020)</li> <li>▪ Delta Beyond Oil.</li> <li>▪ Enugu State Vision 4:2020</li> <li>▪ Lagos State Vision 20:2020</li> <li>▪ Niger State Vision 3:2020</li> <li>▪ Osun State Six Point Action</li> </ul>
2	<ul style="list-style-type: none"> <li>▪ Anambra Integrated Development Strategy (ANIDS)</li> <li>▪ Bayelsa State Sustainable Development Strategy</li> <li>▪ Cross River State International Development Policy</li> <li>▪ Cross River State Economic Empowerment &amp; Development Strategy 2 (2009-12)</li> <li>▪ Edo Strategic Plan (2010-20)</li> <li>▪ Jigawa State Comprehensive Development Framework 2009</li> <li>▪ Kano State Road Map For Development</li> <li>▪ Blueprint For The Transformation Of Kogi State (2012-2016)</li> <li>▪ Lagos State Development Plan 2012-2025 (2013)</li> <li>▪ Niger State Economic And Social Development Plan (PDES) 2012-2015</li> <li>▪ Rivers State Long Term Development Plan (2010-2020)</li> </ul>
3	<ul style="list-style-type: none"> <li>▪ Sustainable Adamawa Development</li> <li>▪ Anambra 20-Year Structural Plans (2009– 2028)</li> <li>▪ Structure Plans For Four Urban Areas In Nasarawa State</li> </ul>
4	<ul style="list-style-type: none"> <li>▪ Delta State Integrated Development Programme (DIDP)</li> <li>▪ First and second Edo State Growth and Employment Support Credit Program</li> <li>▪ Kaduna State Development Plan (KSDP)</li> </ul>

		<ul style="list-style-type: none"> <li>▪ First Lagos State Development Policy Operation (2014)</li> <li>▪ Nasarawa Development Platform Project</li> <li>▪ The Northeast Arid Zone Development Programme (NEAZDP)</li> </ul>
5	Sectorial strategies/policies	<ul style="list-style-type: none"> <li>▪ Adamawa Agricultural Development Programme (ADADP)</li> <li>▪ Akwa Ibom State: Industrialisation Roadmap – 2012 -2015</li> <li>▪ The Borno State Agricultural Development Programme (BOSADP),</li> <li>▪ Information And Communication Technology (ICT) Policy Of Ekiti State</li> <li>▪ Enugu 1<sup>st</sup> Env 4:2020 Medium Term Implementation Plan (EVMTIP) 2010-2013</li> <li>▪ Enugu Works And Infrastructure Sector Medium-Term Sector Strategy (MTSS) 2012-2015</li> <li>▪ Kwara State Medium Term Sectoral Strategy Plan (2011-2015)</li> <li>▪ Lagos Transportation 2013 - 2015 MTSS</li> <li>▪ 2013 – 2015 Lagos Medium-Term Sector Strategy (MTSS)</li> <li>▪ Lagos State Climate Change Policy 2012-2014</li> <li>▪ Ogun State Economic Plan Development 2012-2015 (Economic Master Plan)</li> <li>▪ Ondo State Industrial policy</li> <li>▪ ICT Policy For State Of Osun Final Draft</li> <li>▪ Yobe State Government Industrial Policy</li> </ul>
6	Action plans	<ul style="list-style-type: none"> <li>▪ Cross River State Medium Term Action Plan (2009-2012)</li> <li>▪ Jigawa Investment Policy</li> <li>▪ Kwara State Government's (KWSG) 2014 – 2017 Project Pipeline</li> <li>▪ Niger State Development Action Plan</li> </ul>

Source: Own elaboration.

These initiatives are linked to the key Nigerian national development policies above. The main trend is state-led policies and programmes that are either implicitly or explicitly linked to the Vision 20:2020. Vision 20:2020 has been replicated by the states of Cross River, Enugu, Niger and Lagos, while all other states make reference to it in their policies and programmes.

Another noticeable trend is the link of state-led initiatives to the Government's Transformation Agenda (2011-15). Shared sectoral focus priorities can be identified almost amongst all Nigerian states: Agriculture and Agro-allied, Information and Communication Technology (ICT), Manufacturing, and Tourism, are the most prominent sectors/subsectors

mentioned. Provision of transport (road, rail and water) and power (generation and transmission) infrastructure is a top priority for all states.

A key observation is an apparent shift in the role of governments from direct providers of urban services and infrastructure to becoming predominantly concerned with policy making, regulation and providing an enabling environment for improving the productivity and performance of the local economies. This approach is reflective of the emphasis on privatisation and PPP schemes in all state-led policies and programmes.

Urbanisation provides an opportunity for economic development and deserves more explicit attention and support from the government at the national, state and local levels. The aim should be to create the conditions in urban areas for unleashing economic opportunities that would translate into real improvements in urban productivity, employment creation, livelihood provision and poverty reduction.

Key to unleashing economic opportunities from urbanisation is to focus policy initiatives at region-wide agglomeration economies, and intra-regional localisation economies. While the former are more generic across metropolitan regions, the latter are more specific to the clusters operating within each region.

Table 17 in the next page lists major proposed public and private-sector led economic development projects.

It is followed by a case study in Box 4 which illustrates local economic development measures proposed for Onitsha, an important commercial urban centre with a population of about one million inhabitants in Anambra State.

**Table 17 Major projects by sector/subsector**

Sector	Project
Transport	<ul style="list-style-type: none"> <li>▪ Bus Rapid Transport (BRT) and cable car (Lagos, PPP); Lagos Metro-line (Lagos public), Abuja Light Rail (Abuja, Public) and Kano light rail (Kano, PPP), Rivers light rail (Rivers, public); Obuaku Seaport (Abia) Lekki Seaport (Lagos), The Ibaka Integrated Deep Seaport (Akwa Ibom, Public), Onitsha Port (Anambra), Agge Town deep-sea port (Bayelsa, Public), Deep sea port (Delta), Olokola deep sea port (Ondo/Ogun, Public); Umuahia Airport (Abia, PPP), Bauchi Airport (Bauchi, Public), Bayelsa airport (Bayelsa, public), Asaba International Airport (Delta, public), Lekki international airport (Lagos), Ekiti Cargo &amp; Passenger Airport (Ekiti, PPP), Akanu Ibiam International Airport (Enugu), Ogun International Airport (Ogun), MKO Abiola International Airport (Osun), Transformation of Ibadan Airport to Cargo Airport (Oyo, Public)</li> </ul>
Power Sector	<ul style="list-style-type: none"> <li>▪ OMA Power Stations (Abia , private), Alaoji Power Station (Abia , public), Ikot Abasi independent power plant (Akwa Ibom , public), Azura- Edo Independent Power Plant (Edo, PPP), Enpower Enugu Power (Enugu, PPP), Tiga hydro electricity Power station and Challawa</li> </ul>

	Gorge dam (Kano, public), Akute, Lagos Island, and Alausa power plants with 6 in the pipeline (Lagos), Zungeru, Gurara, Swashi , Tapa 1 and Tapa 2 Hydro-power plants (Niger), Ogun power plant (Ogun), Building three Power Stations, seven Transmission Stations and seven Distribution injection substations as well as Investment in three gas turbine projects (Rivers), Independent Power Project at Arkilla (Sokoto, public), Kashimbila Hydro Power Project (Taraba, public)
Agriculture and agro-allied	<ul style="list-style-type: none"> <li>▪ Fadama<sup>16</sup> programme (the FADAMA programme is a World Bank initiative being undertaken in 12 states: Adamawa, Bauchi, Gombe, Imo, Kaduna, Kebbi, Lagos, Niger, Ogun, Oyo, Taraba and FCT), Taraku Mills Limited, Agro-millers (Benue), EbonyAgro rice processing mill (Ebonyi), Songhai farm Initiative (Enugu, Kastina, Public; Kwara, PPP), Bogo/Nasarawo Industrial Estate (Gombe, Public), fertiliser blending plants (Kano, Kastina, Nasarawa, public), Rice processing mill (Kebbi, public), Two agro-based industrial parks at Imota and Ilara/Igbonla (Lagos), OLAM Integrated Rice Mill. (Nasarawa, private)</li> </ul>
Oil and Gas	<ul style="list-style-type: none"> <li>▪ Orient petroleum resources PLC refinery (Anambra, private), Gas City Project (Delta, public), A petro-chemical industrial park at Badagry (Lagos, PPP)</li> </ul>
Manufacturing	<ul style="list-style-type: none"> <li>▪ Abuja Industrial Park (Abuja, public), International Electrical, Electronics and Auto-Parts Market, Naze (Imo, public), Owerri Shoe Industry (Imo, PPP), Nsu Tiles and Ceramics and Ezinnachi Clay Products Industries (Imo, PPP), Obajana cement factory (Kogi, private), Computer Assembling Plants (Ogun), Omoluabi Garment Factory (Osun, PPP), Transformer Manufacturing Plant (Oyo, private)</li> </ul>
Free Trade Zones	<ul style="list-style-type: none"> <li>▪ Tinapa Free trade zone (Cross River), Koko Free Trade Zone (Delta), Energy Free Trade Zone (FTZ) (Enugu,PPP), Imo Free Trade Zone, Ngor Okpala (Imo, public), Maigatari Border export Free Zone (Jigawa, public), Kano Free Trade Zone (Kano, public), Staple Crops Processing Zone (SCPZ) (Kebbi, public), Olokola free trade zone (Ondo/Ogun, public), Lekki Free trade Zone (Lagos)</li> </ul>
Tourism and Entertainment	<ul style="list-style-type: none"> <li>▪ Abuja Film Village International (Abuja, PPP); Plateau Film City (Plateau, PPP)</li> </ul>

Source: Own elaboration.

<sup>16</sup> “Fadama” is the Hausa name for irrigable land.

### Box 3 Local economic development in Onitsha

Onitsha is a rapidly growing city on the eastern bank of the Niger River in Anambra State in the South-East geo-political zone. It is a major commercial, educational and religious centre, which has seen its population increase from 76,000 in the 1960s to over half a million in 2011, with a total metropolitan regional population of over 1 million.

In 2009, UN-HABITAT, with the financial support of the European Commission's European Development Fund, conducted the Onitsha Urban Profiling which consists of an assessment of urban conditions, focusing on priority needs, capacity gaps and existing institutional responses at local and national levels. Urban profilings have also been conducted in Karu (Nasarawa State) and Ifako-Ijaiye (Lagos State).

What follows draws from the Onitsha Urban Profiling.

Onitsha is known for its market, which is probably the largest in the country. The city has also the largest concentration of manufacturing in the state, followed only by Nnewi. There are industrial estates developed in the city, but due to poor infrastructure provision and services, local investors locate their factories within residential areas. Apart from trading and manufacturing, much of the rest of employment is in the service sector.

The state government has taken a number of measures to accelerate economic growth in the city, including:

- Granting of soft loans for establishing micro-projects
- Establishment of micro-finance banks to assist the development of small-scale industries
- Establishment of a technology incubation centre
- Relaxation of conditions for granting loans to small-scale entrepreneurs
- Development and running of skill development centres, which are backed by soft loans
- Organisation of trade fairs and exhibitions to advertise products from the state
- Using the SEEDS and LEEDS to attract development partners and multilateral agencies to the state
- Investing in planning of the business environment in the form of business parks, goods markets, shopping plazas, and industrial estates and markets, which are rare in the city.

Source: UN-HABITAT, 2012.

# FINDINGS AND RESEARCH AND POLICY IMPLICATIONS

The research in this report explores Nigeria's economic structure and economic geography. The composition of GDP was analysed by output, tracing its transformation between 1990 and 2010, and by employment across sectors in 2010. The location of employment by sectors and subsectors within both the formal and informal economy were analysed across states and cities using several sources of data. It also provided a broad picture of the overall economic development policy and institutional environment at the federal, state and local levels.

Findings and policy implications at this point are provisional in nature.

They can be summarised as follows:

- The economy has diversified substantially over the past two decades of robust growth. However two factors at least partly explain why such growth in output has not translated into a reduction in poverty and unemployment. Over a third of the growth in GDP between 1990 and 2010 was driven by three sectors, Real Estate, ICT and Oil & Gas, which are highly productive but employed a mere 1.5 percent of workers by 2010. A low-productivity Manufacturing sector contributed just 5 percent of the 1990-2010 GDP growth. The sector failed to diversify and grow over the past two decades, and it is yet to be seen whether recent growth can be sustained.
- The highly productive tradable sectors of the economy, ICT, Professional, Scientific & Technical Activities and Finance & Insurance are concentrated in the South-West region, between Lagos and Ibadan. While these three sectors employ a small fraction of national employment, they have a significant impact on the metropolitan regions in which they are concentrated.
- The Manufacturing sector, unlike the Services sector, did not diversify over the past two decades. Manufacturing employment is concentrated in the Food, Beverage & Tobacco subsector (60 percent), which has a relatively low productivity, but is higher, however, than the second largest subsector, Textile, Apparel & Footware, which accounts for 10 percent of manufacturing employment.
- The analysis has identified three main zones where economic activity is concentrated. The first is in the South West, centred around Lagos and the surrounding cities and the corridor to Ibadan. This zone is specialised in ICT, Professional & Scientific Services, Financial Services and Manufacturing. Urbanisation economies are evident in the high number of firms from all sectors located in Lagos. The second zone is an industrial corridor running from Abuja to Kano in the north of the

country, and including Kaduna and Jos. Kano is the second largest city and historically a manufacturing hub, while Abuja is an emerging industrial centre, with very little known about the nature of manufacturing in the city. The final zone is in the South East, primarily the cities of Port Harcourt, Onitsha and Aba. These three cities between them account for a significant percentage of manufacturing activity.

- A key finding is the prevalence of manufacturing in the medium-sized cities (500,000 to 1 million). This is due primarily to the existence of establishments in the cities of Aba, Ilorin, Onitsha, Kaduna and Jos. Given the relatively small size of these cities, these may be manufacturing firms in the same or inter-related subsectors, driven by localisation economies.
- The analysis thus identifies large agglomerations and major centres of industrial concentrations across states and cities, as well as makes a start in identifying and analysing clusters of interrelated firms at the intra-regional scale. We have a partial understanding of sectoral dynamics in terms of firms' activities within global, regional and local value chains (including local inter-firm linkages), their final markets (local, national, regional or international) and their industrial organisation (the role of business associations, unions and systems of learning and upgrading).
- The aspects of the business climate hampering the development of the manufacturing sector are well-researched and widely recognised (notably the role of infrastructure provision and services), but what is less well understood are the institutional weaknesses, within both both political and civic/business spheres, that impede addressing these obstacles.
- It follows that economic development policy interventions are often not guided by clear spatial considerations and there is generally little focus on urban and local/intra-urban economies, which are at times also not well understood or characterised (including the informal sector component and formal-informal linkages). While there is ongoing interest in how best to promote local economies, local economic development is not a widely-held objective of policy and programming at city level. Nigerian cities and towns need an integrated approach to local economic development that recognises and responds to the specific needs of its industrial clusters (characterised by localisation economies), as well as of the broader urban agglomerations within which they are embedded.
- The informal economy is widespread, a little larger than the formal sector in terms of employment, and diverse. While limited case-study evidence suggests it is often an extension of the formal economy, formal-informal linkages are poorly understood. Regions are the appropriate scale for analysing such linkages, and would be an appropriate extension of intra-regional cluster analysis as discussed

above. Such an understanding of the informal economy is an essential precursor to appropriate policy measures.

- Within Nigerian cities, the space and accommodation needs of informal economic activities are often not provided for in the land use and urban development process. A key issue is therefore how the informal sector accesses the urban facilities required for its operations and better performance.
- In the absence of city-level governments, local economic policies and programmes often require formulation and implementation through state governments. It is therefore crucial that the policy environment (and intergovernmental relations) at the national, state and local levels are well understood.
- State governments, in particular, have been responding to local economic development needs in several ways. State governments have been preparing State Economic Empowerment and Development Strategies (SEEDS), and amongst others, strategies, policies and programmes concerned with economic development issues. A key observation is an apparent shift in the role of government from being direct providers of urban services and infrastructure to becoming also concerned with providing an enabling environment for improving the productivity and performance of the local economies. This approach is also reflective of the emphasis on privatisation and PPP schemes.
- It is widely recognised that better economic opportunities are required to reduce poverty in Nigeria. Research that provides a better understanding of the conditions of urban poverty also has implications for economic policy and development. The available evidence reinforces the argument that urban economic growth is an important contributing factor for poverty reduction in Nigeria – but more and better research is needed.

At this point, three key research issues thus emerge:

- Available research focuses predominantly on broad cross-cutting and often aspatial issues, with little attention paid to spatial concentration and its potentially beneficial impacts. There is limited discussion of clusters and their spatial fit within regions, metropolitan areas and cities, this with a focus on knowledge production, spillovers and innovation policy.
- The functions and spatial structure of informal economic activity and its linkages to the formal economy is poorly studied and analysed and is a fertile area for research.
- One over-riding issue is data limitations. In order to undertake economic analysis at the metropolitan and/or city levels it is necessary to have spatially disaggregated data. Spatial statistics at those scales are however limited and/or not available in Nigeria. Alternative creative techniques are required to gain greater visibility of intra-regional economic activities and inter-firm linkages.

Future research within the urban economic growth theme of the Urbanisation Research Nigeria (URN) programme will attempt to address the issues above. In particular, proposed research projects will attempt to:

- Develop an in-depth understanding of intra-regional clusters (their internal functioning, position within value chains and obstacles to growth and upgrading), and shed light on the metropolitan-level political economy for local economic development and of institutional capacities to mobilise private and public resources in response to challenges and opportunities for employment growth and sectoral diversification.
- Assess, on the basis of detailed sectoral/locational analysis, the role that the urbanisation process plays as a promoter of economic growth and local development, with specific focus on the contribution of the cement and steel subsectors to the city building process and to economic performance.
- Design an index aimed at providing an indicator of improvements in urban infrastructure, focusing specifically on factors for economic development and production (land, power, transport, ICT).
- Explore the relationship between economic knowledge, competitiveness and livelihood outcomes, drawing conclusions on how to create a better enabling environment for informal businesses and clusters.
- Understand the role of smaller and mid-size urban settlements in the urbanisation process and urban system, focusing on support to agricultural marketing process, and on diversification of the non-farm economy.

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## ANNEX 1

NATIONAL ACCOUNTS FRAMEWORK		
	Sector	Definition
1	Agriculture	Agriculture includes all activities of growing of crops, raising of animals, harvesting of timber and other plants, animals or animal products from a farm or their habitats.
2	Mining and Quarrying	The activities include mining and agglomeration of hard coal and iron ores, extraction of crude petroleum and natural gas, quarrying of stone, sand and clay, and activities supplementary to mining and quarrying.
3	Manufacturing	In Nigeria, manufacturing sector is divided into 13 activities: oil refining, cement, food beverage and tobacco, textile, apparel and footwear, wood and wood products, pulp, paper and paper products, chemical and pharmaceutical products, non-metallic products, plastics and rubber products, electrical and electronics, basic metal, iron and steel, motor vehicle and assembly, and other manufacturing.
4	Electricity, Gas, Steam and Air Conditioning Supply	It includes electric power generation, transmission and distribution, manufacture of gas, distribution of gaseous fuels through mains and steam and air conditioning supply.
5	Water Supply, Sewerage, Waste Management and Remediation	It includes water collection, treatment and supply, sewerage, waste collection, treatment and disposal, materials recovery and remediation activities.
6	Trade	Wholesale and retail trade.
7	Construction	It comprises construction of buildings (residential and non-residential building), civil engineering (construction of road, railways, utility projects; and waterways, harbour, dredging of water ways and dams) and specialized construction activities (demolition and preparation of site, plumbing, electrical installation activities and finishing).
8	Accommodation and Food Services	Short term accommodation activities, camping grounds, recreational vehicle parks and trailer parks, restaurants and mobile food service activities, event catering and other food service activities, and beverage serving activities.
9	Transportation and Storage	The sector is divided into 6 sub-economic activities: Road transport, rail transport and pipelines, water transport, air transport, warehousing and transport services, post and courier services.
10	Information and Communication	Includes telecommunications and information services, publishing, motion picture, sound and musical production, and broadcasting.

11	Arts Entertainment Recreation	Includes creative, arts and entertainment, libraries, archives, museums and other cultural activities, gambling and betting activities, and sports activities and amusement and recreation activities.
12	Finance and Insurance Services	The sector is divided into financial institutions and insurance.
13	Real Estate	Real estate activities with own or leased property, and real estate activities on a fee or contract basis.
14	Professional Scientific and Technical Services	It covers accounting, auditing, advertisement, architectural services and engineering.
15	Administrative and Support Services	It covers Rental and leasing activities of household goods, motor vehicle, machinery and equipment, employment activities, travel agency, tour operator, reservation service and related activities, security and investigation activities, services to buildings and landscape activities, office administrative and office support and other business support activities.
16	Public Administration	This section includes activities of a governmental nature, normally carried out by the public administration.
17	Education	Education comprises public and private education and it includes, pre-primary and primary education, secondary education, technical and vocational secondary education, higher education, sports and recreation education, cultural education and educational support activities.
18	Human Health and Social Services	Comprises human health, residential care and social work activities.
19	Other Service Activities	It includes activities of business, employers and professional membership organizations, trade unions, religious organizations, political organisations, repairs of computers and communication equipment, repairs of computers and peripheral equipment, repairs of communication equipment, repairs of personal and household goods, repairs of consumer electronics, repairs of household appliances and home and garden equipment, repairs of footwear and leather goods, repairs of furniture and home furnishings, repairs of other personal and household goods, washing and (dry-) cleaning of textile and fur products, hairdressing and other beauty treatment, and funeral and related activities.

Source: National Bureau of Statistics, 2014. The CC license does not apply to this table.

## ANNEX 2

EXPORT PROCESSING ZONES				
	Cluster	Sector	City	Remarks
1	Abuja technology village free zone	Science and Technology	Abuja	Not yet operational / under construction. Joint public/private venture.
2	Airline services export processing zone	Food Processing and Packaging	Lagos	This EPZ is based at Murtala Mohammed International Airport and focusses on the processing and packaging of Nigerian cuisine for export. It is a private venture and is currently operational.
3	ALSCON export processing zone	Manufacturing	Uyo	The ALSCON EPZ is home of the Aluminium Smelter Company of Nigeria, which has its own power plant providing power to the cluster. It is privately owned and is currently operational.
4	Banki border free zone	Manufacturing, Warehousing, Trading	Banki	Declared as an EPZ to be managed and operated by the Borno state government.
5	Brass LNG free zone	Liquified Natural Gas	Brass	Under construction. Joint public/private venture.
6	Calabar free trade zone	Manufacturing, Oil and Gas, Logistic Services	Calabar	The Calabar Free Trade Zone was the first of Nigeria's EPZs. The CFTZ is owned by the Federal government. Despite its status as the oldest EPZ, CFTZ is fraught with infrastructure problems including an unreliable power supply, poor quality roads and a river channel in need of dredging.
7	Ibom science and technology park	Science and Technology	Uyo	Not yet operational / under construction. Joint public/private venture. Information technology and software development will be the focus of the first phase of science park development. The state particularly hopes to develop small- and

				medium-sized businesses oriented toward serving or making products from Nigeria's oil industry. Agriculture, biotechnology, health and pharmaceutical projects offer other opportunities for the future.
8	Imo Guangdong FTZ	Manufacturing	Imo State	Partnership between Imo state government and state-owned Chinese African investment company Guangdong Xinguang International. Not yet operational / under construction.
9	Kano free trade zone	Manufacturing, Logistic Services, Warehousing	Kano	Operational Federal government zone specialising in manufacturing, logistic services and warehousing.
10	Koko free trade zone	Manufacturing	Koko	Declared state owned EPZ.
11	Kwara free zone	Trading, Warehousing	Kwara State	Declared state owned EPZ.
12	LADOL free zone	Oil and Gas, Fabrication, Oil and Gas Vessels, Logistics	Lagos	The main purpose of the LADOL Free Zone is the provision of logistical, engineering and other support services for deep water offshore oil and gas exploration.
13	Lagos free zone	Manufacturing Oil and Gas, Petrochemical	Lagos	Operational privately managed zone specialising in oil and gas and manufacturing.
14	Lekki free zone	Manufacturing, Logistics	Lagos	Operational state managed EPZ linked to the Lagos free zone. Is the site of the Lekki port, planned to be completed in 2015. Once completed, it will be the largest port in Nigeria.
15	Living Spring free zone	Manufacturing, Trading and Warehouse	Osun State	Not yet operational/under construction. State owned.
16	Maigatari border free zone	Manufacturing, Warehousing	Maigatari	Located in the town of Maigatari, on the border between Nigeria and Niger.
17	Ogun Guangdon	Manufacturing	Igbesa	Partnership between Ogun state government

	g free trade zone			and state-owned Chinese African investment company Guangdong Xinguang International. The zone has a capacity for 100 firms. As of February 2014, the zone had 35 operating firms, including a power plant – generation and distribution plant; stainless tank manufacturers, furniture and cabinet-making plant, tissue paper manufacturers among other manufacturing companies.
18	OILSS logistics free zone	Marine, Logistics, Support Services for offshore Oil Repairs	Lagos	Declared private EPZ.
19	OK free trade zone	Oil and Gas Manufacturing	Olokola	The OK Free Trade Zone is located in both Ogun and Ondo states managed and developed by the OK FREE TRADE ZONE ENTERPRISE, a Public Private Partnership between the governments of Ogun and Ondo State and the Belgian company Rent-A-Port. A deep sea port is being constructed in the zone, which specialises in oil and gas and manufacturing activities.
20	Oluyole free trade zone	Manufacturing	Oyo State	Declared state owned EPZ.
21	Onne oil and gas free zone	Oil and gas	Port Harcourt	Operational and managed by DMS International Ltd, Onne is the only free zone in the world dedicated solely to the oil and gas industry. More than 30 international oil and gas companies registered in the zone.
22	Sebore farms export	Manufacturing Oil and Gas, Petrochemical	Mayo-Belwa LGA	Operational zone specialising in agricultural produce and sale and

	processing zone			rental of agricultural machinery.
23	Snake island integrated	Steel Fabrication, Oil and Gas, Sea Port	Lagos	Privately owned operational free zone specialising in oil and gas services.
24	Specialized railway industrial FTZ - Kajola	Rail Cargo Transport	Kajola LGA	Declared state owned EPZ. Development yet to commence.
25	Tinapa free zone and tourism resort	Manufacturing, Trade, Tourism and Resort	Calabar	Operational public/private free trade zone linked and contiguous with the Calabar zone. The zone has facilities for retail and wholesale activities, as well as leisure and entertainment.

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