2014 MEETING OF THE JOINT PLANNING BOARD / NATIONAL COUNCIL ON DEVELOPMENT PLANNING, BAUCHI, BAUCHI STATE



# **MEASURING BETTER:** IMPLICATIONS OF REBASING / RE-BENCHMARKING OF THE GROSS DOMESTIC PRODUCT FOR GROWTH & JOB CREATION

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23-25 APRIL 2014







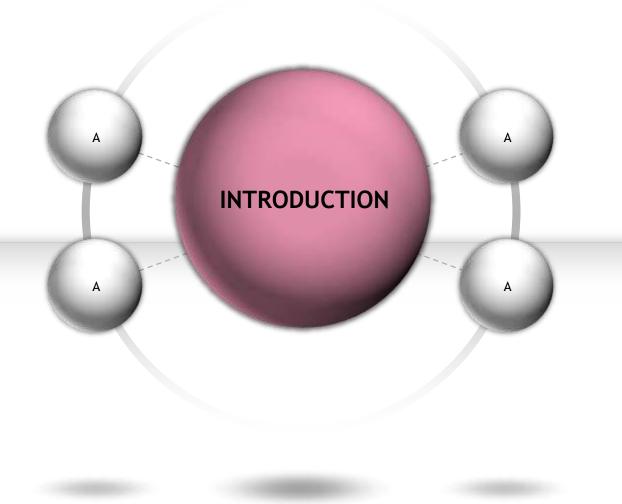




- A. Introduction
- B. What is GDP?
- C. Understanding GDP Rebasing/Re-benchmarking
- D. The GDP Rebasing Exercise in Nigeria
  - . Results from the GDP rebasing/ re-benchmarking
  - . Implications for growth and job creation
- G. Some policy suggestions
- H. Conclusion









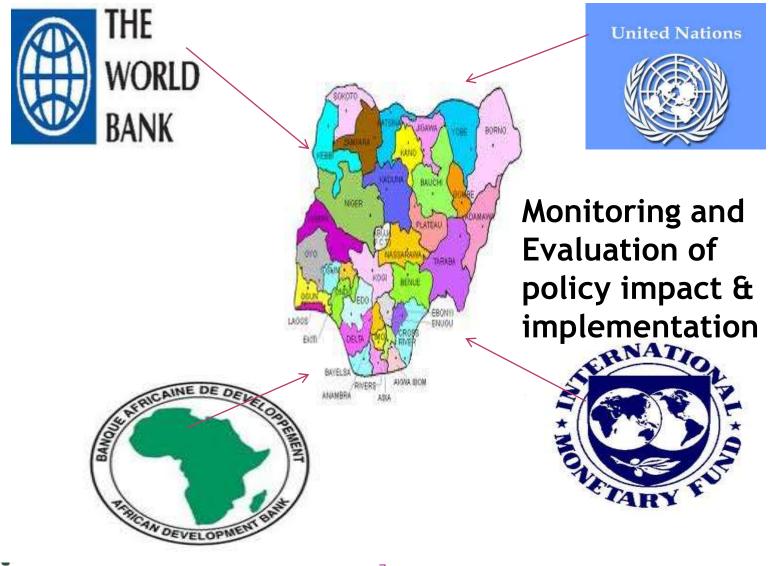






decision-making NATIONAL BUREAU OF STATISTICS

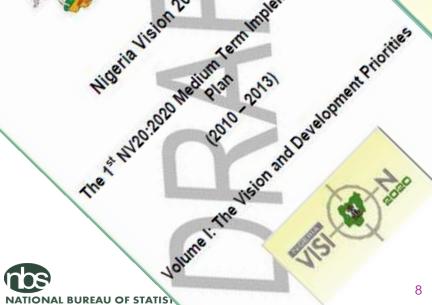
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The & W20-2020 Medium Terminolenemation

## Plan preparation, policy choice and programme design

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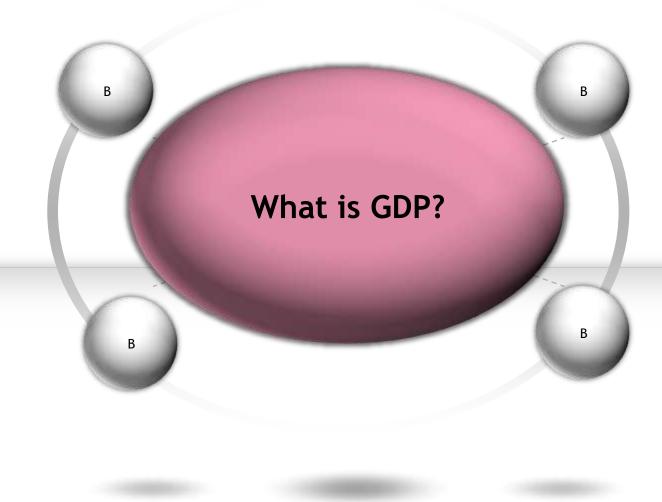
Measuring governance and accountability

engendering public debate and

informing public choices











### What is GDP?

The Gross Domestic Product (GDP) is the market value of all officially recognized final goods and services produced within a country in a given period

- Output/Production approach
  - Value of Sales of goods and services - Intermediate Consumption in producing those goods and services.
- Expenditure Approach
  - GDP = C + I + G + (EX IM)
- Income Approach

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Wages+Rent+Interests+ profits+ adjustments











UNDERSTANDING GDP REBASING/ RE-BENCHMARKING С

С

С

С

**"MEASURING BETTER"** 



### Why rebase?

### • Economies are dynamic: growth, recession

- Over time, prices change and the structure of an economy changes
  - introduction of new products
  - alteration in the variety of products and services due to technological innovations and developments

### • Changes in consumption

### • Price structure of the economy changes

- base year structure becomes less representative of the economy as time progresses
- substitution effect: Consumers move away from relatively more expensive products to buy goods with relatively cheaper prices.



Table 1: Selected countries that have undertaken rebasing exercises and the magnitude of the changes.

Country	Old Base Year	New Base Year	Number of years between base years	GDP after rebasing
Argentina	1986	1993	7	-8.2
Botswana	1993/1994	2006	13	-10
Brazil	1985	2000	15	7.0
Burundi	1996	2005	9	40.3
Cape Verde	1980	2007	27	13.7
Chile	1986	1996	10	9.9
Colombia	1975	1994	19	16.5
DRCongo	2000	2005	5	66.4
Ecuador	1975	1994	19	-3.1
Egypt	2001/2002	2006/2007	6	8.9
Ethiopia	1999/2000	2010/2011	12	-1
Ghana	1993	2006	13	62.8
Guatemala	1958	2001	43	-10.7
Honduras	1978	2000	22	19.2
Lesotho	1995	2004	9	-4.4
Morocco	1988	1998	10	11.7
Nicaragua	1980	1994	14	70.0
Niger	1987	2006	19	2.5
Nigeria	1990	2010	24	???
Paraguay	1982	1994	12	-11.6
Sierra Leone	2001	2006	5	25.6
Tanzania	2001	2007	6	10
Tunisia	1990	1997	7	9.8
Uganda	1997/1998	2002	5	10.5
Venezuela	1984	1997	13	-3.2



# **SECTION D**

Nigeria's GDP Rebasing Exercise: Processes & procedures е

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### • Summary of key activities undertaken in the process:

- Revision of the activity classification in national accounts;
- Compilation of merchandise imports & exports, wholesale & retail trade margins, as well as imports and exports of services
- Field surveys for selected economic activities
- Collection of price indices
- Compilation of preliminary intermediate consumption and valuation matrices and
- Estimation of production accounts by the adopted industry classification
- Technical Assistance provided by 4 int'l National Accounts Experts
- Technical workshops with Stakeholders, involving over 150 Ministries, Departments & Agencies
- Results-validation meetings with key policy makers including NEMT & EMIT
- Results-validation meetings with 6 economics professors; and
- Results-validation meetings with Joint Mission of the IMF, AFDB and World Bank



### Nigeria's GDP Rebasing exercise

 Thorough compliance with international best practice

## Methodology guidelines

Detailed methodology notes can be obtained from our website at [www.nigerianstat.gov.ng]

### Four major methodological pillars

- The System of National Accounts (SNA 2008 version),
- the International Standard Industrial Classification (ISIC Revision 4), and
- The Central Product Classification (CPC version 2)
- o Ongoing development of the SUT matrix

Old Classification	ssification New Classification		
Crop Production	Post	Crop Production	Construction
Livestock	Financial Institutions	Livestock	Trade
Forestry	Insurance	Forestry	Accommodation and food services
Fishing	Real Estate	Fishing	Road Transport
Coal Mining	Business Services	Coal Mining	Rail Transport & Pipelines
Crude Petroleum & Natural Gas	Public Administration	Crude Petroleum And Natural Gas	Water Transport
Metal Ores	Education	Metal Ores	Air Transport
Quarrying & Other Mining	Health	Quarrying And Other Minerals	Transport Services
Oil Refining	Private Non Profit Organisations	Oil Refining	Post and Courier Services
Cement	Other Services	Cement	Telecommunications
Other Manufacturing	Broadcasting	Food, Beverage And Tobacco	Motion Pictures, Sound recording and Misic production
Electricity		Textile, Apparel And Footwear	Publishing
Water		Wood And Wood Products	Broadcasting
Building & Construction		Pulp, Paper And Paper Products	Arts, Entertainment and Recreation
Wholesale and Retail Trade		Chemical, Chemical Products And Pharmaceutical Products	Financial Institutions
Hotel and Restaurants		Non-metalic Products	Insurance
Road Transport		Plastic And Rubber Products	Real Estate
Rail Transport & Pipelines		Electrical And Electronics	Administrative and Support Serives
Water Transport		Basic Metal , Iron And Steel	Professional, Scientific and technical services
Air Transport		Motor Vehicles & Assembly	Public Administration
Transport Services		Other Manufacturing	Education
Telecommunications		Electricity, Gas ,Steam And Air Conditioning Supply	Human Health and social services
		Water Supply, sewerage, Waste Management And	

- The methodological procedures / changes resulted in:
  - Increase in frame size
  - Greater disaggregation in classification of economic activities, from 33 to 46.
  - Better coverage of the informal sector
  - Inclusion of new economic activities
  - Change in estimation procedures for certain economic activities
  - Improved use of administrative data

 Overall, there is greater confidence that the rebased GDP estimates reflect a more accurate representation of the Nigerian economy





# SECTION E



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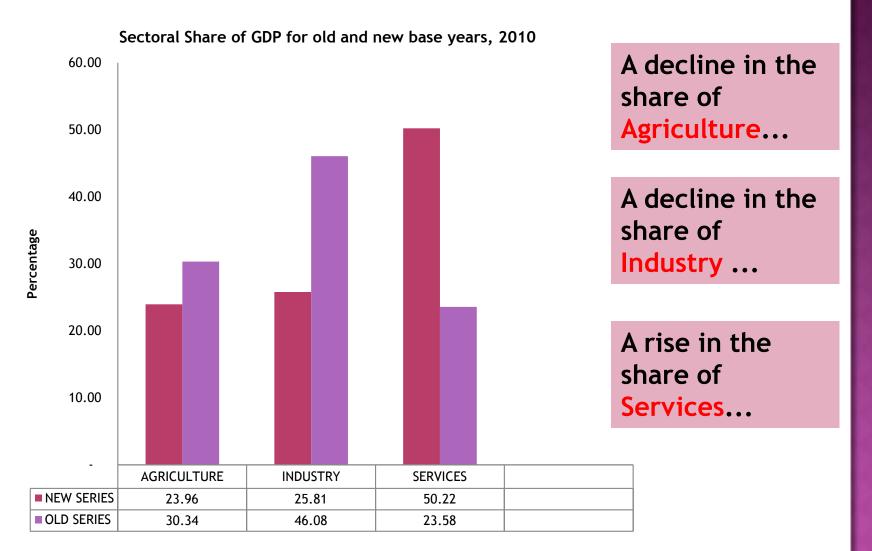
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					_
	OLD SERIES (Nm)				Nominal GDP
	2010	2011	2012	2013f	(2013) est.:
Agriculture	10,310,655.64	11,593,434.13	13,413,842.46	14,709,104.12	· · ·
Industry	15,659,521.00	16,569,291.58	16,456,457.10	15,374,554.67	N80.2trillion
Services	8,014,577.50	9,247,134.90	10,673,800.38	12,313,106.1	
<b>Total Nominal GDP</b>	33,984,754.13	37,409,860.61	40,544,099.94	42,396,765.71	
NEW SERIES (Nm)					This
	2010	2011	2012	2013f	
Agriculture	12,988,809.19	14,421,928.95	15,918,631 70	17,625,142.90	translates to
Industry					US\$509.9
	13,992,438.93	17,615,537.36	19,024,322.24	4 20,671,951.45	billion
Services	27,223,547.01	31,221,112.69	36,243,580.95	41,925,033.96	Dittion
Total Nominal GDP	54,204,795.12	63,258,579.00	71,186,534.39	80,222,128.32	
Percentage change between Old and New GDP Series			GDP Series		
Sector	2010	2011	2012	2013f	Largest
Agriculture	25.97	24.40	18.67	19.82	economy in
Industry	-10.65	6.31	15.60	34.46	-
Services	239.68	237.63	239.56	240.49	Africa;
Total Nominal GDP	59.50	69.10	75.58	89.22	26 <sup>th</sup> largest in
					the world







#### Rebased (New) Series, 2010

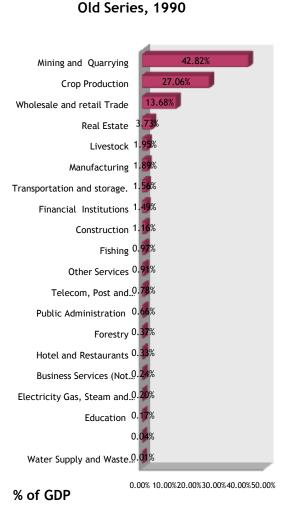
Crop Production	11.65
Trade	8.91
Mining and	8.45
Information	5.96
Real Estate	4.13
Manufacturing	3.58
Public	2.00
Professional, S	1.71
Construction	1.57
Financial	1.24
Livestock	0.95
Other Services	0.90
Education	0.83
Transportation	0.69
Human Health	0.56
Electricity	0.32
Fishing	0.25
Accommodatio	0.25
Forestry	0.14
Water Supply.	0.07
Arts	0.03
Administrative	0.01
N'Trns	- 5 10 15

The number of economic activities that

constitute 70% of nominal GDP is now 6...

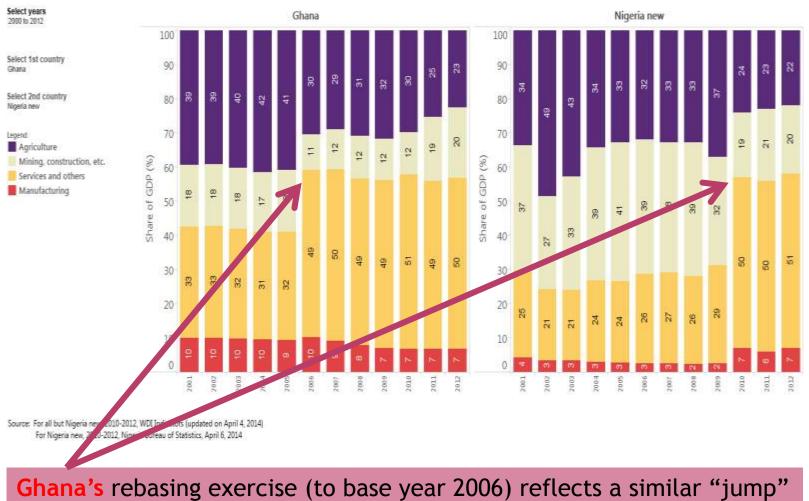
#### % of GDP (2010, Rebased)

Crop Production	21.49		
Trade	16.44		
Mining and	15.60		
Information and	11.00		
Real Estate	7.62		
Manufacturing	6.60		
Public	3.69		
Professional, Scie	3.16		
Construction	2.90		
Financial	2.29		
Livestock	1.76		
Other Services	1.66		
Education	1.53		
Transportation	1.28		
Human Health	1.03		
Electricity	0.58		
Fishing	0.46		
Accommodation	0.45		
Forestry	0.25		
Water Supply and	0.13		
Arts	0.06		
Administrative	0.02		
% of GDP (	)	20	40



...compared to only 3 activities in the old series

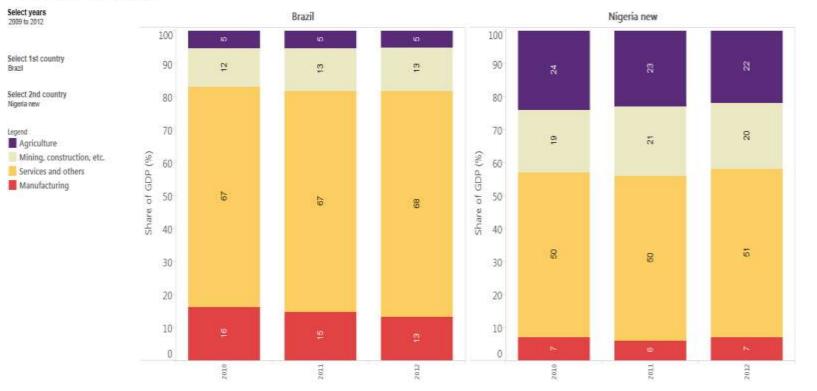
#### Comparison of Structure of GDP







#### Comparison of Structure of GDP

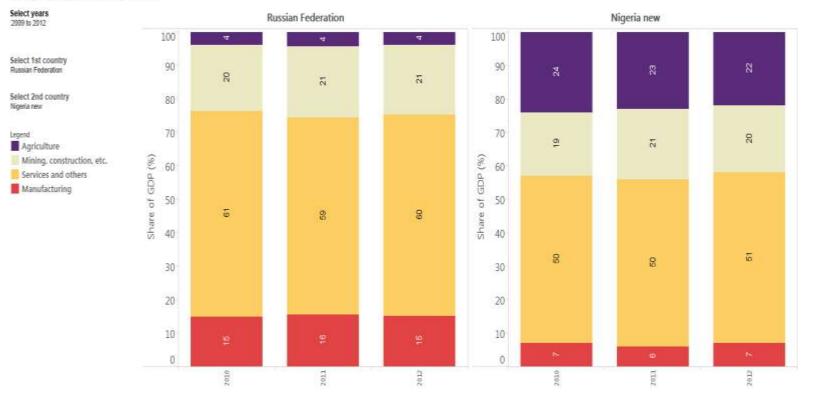


Source: For all but Nigeria new, 2010-2012, WDI Indicators (updated on April 4, 2014) For Nigeria new, 2010-2012, Nigeria Bureau of Statistics, April 6, 2014

### Comparison with BRICS...

**Brazil** shows a more dominant Services sector, stronger manufacturing and relatively smaller agricultural sector.

#### Comparison of Structure of GDP

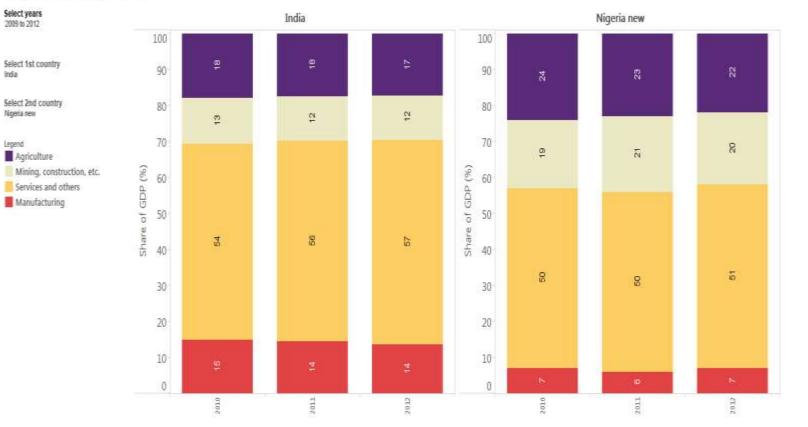


Source: For all but Nigeria new, 2010-2012, WDI Indicators (updated on April 4, 2014) For Nigeria new, 2010-2012, Nigeria Bureau of Statistics, April 6, 2014

### Comparison with BRICS...

**Russia** (like Brazil) shows a more dominant Services sector, stronger manufacturing and relatively smaller agricultural sector.

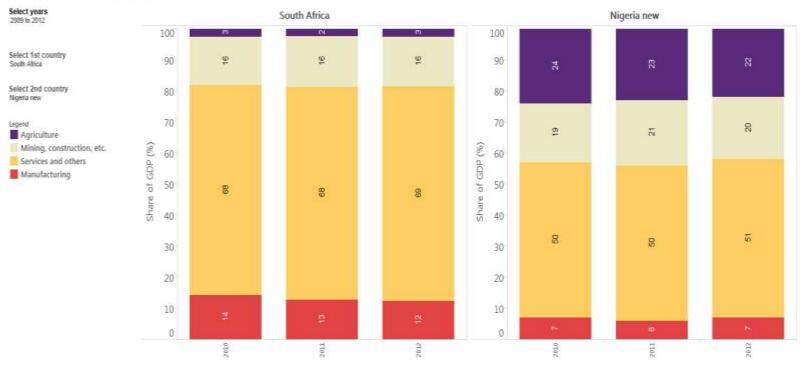
#### Comparison of Structure of GDP



Comparison with BRICS...

India shows a more dominant Services sector, stronger manufacturing and fairly large agricultural sector.

#### Comparison of Structure of GDP



Source: For all but Nigeria new, 2010-2012, WDI Indicators (updated on April 4, 2014) For Nigeria new, 2010-2012, Nigeria Bureau of Statistics, April 6, 2014

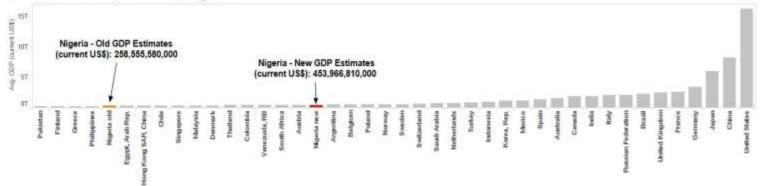
### Comparison with BRICS...

South Africa shows a very dominant Services sector, stronger manufacturing and relatively smaller agricultural sector.

#### 2012 GDP in Current US \$ - All Countries



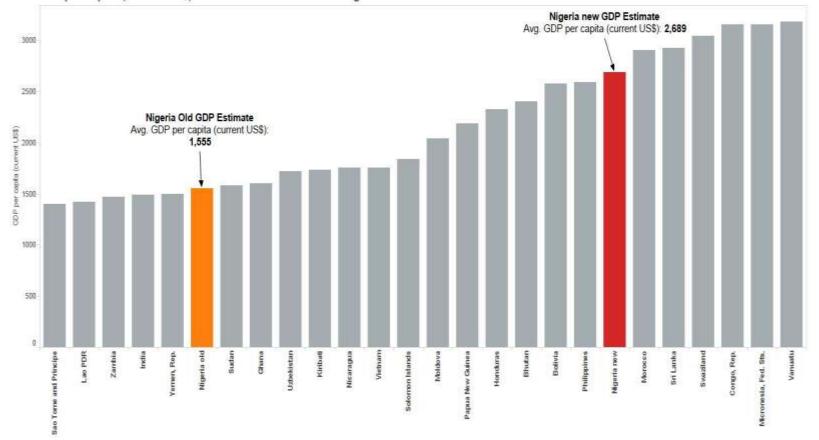
#### 2012 GDP in Current US \$ - Countries with Highest GDP



Source: All but Nigeria New GDP estimates, World Bank World Development Indicators Nigeria New GDP Estimates, Nigeria Bureau of Statistics, April 6, 2014



2012 GDP per capita (current US\$) - Countries around value of Nigeria



Per capita nominal GDP (2012) stands at US\$2689, placing Nigeria121<sup>st</sup> in global rankings, ahead of the Philippines, Bolivia, Bhutan, and behind Morocco and Sri Lanka.





# SECTION E

### IMPLICATIONS FOR GROWTH & JOB CREATION

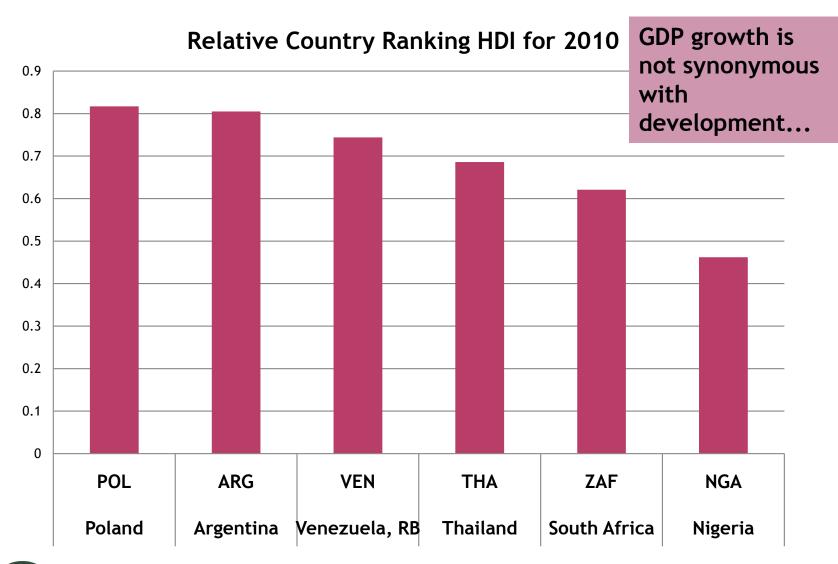
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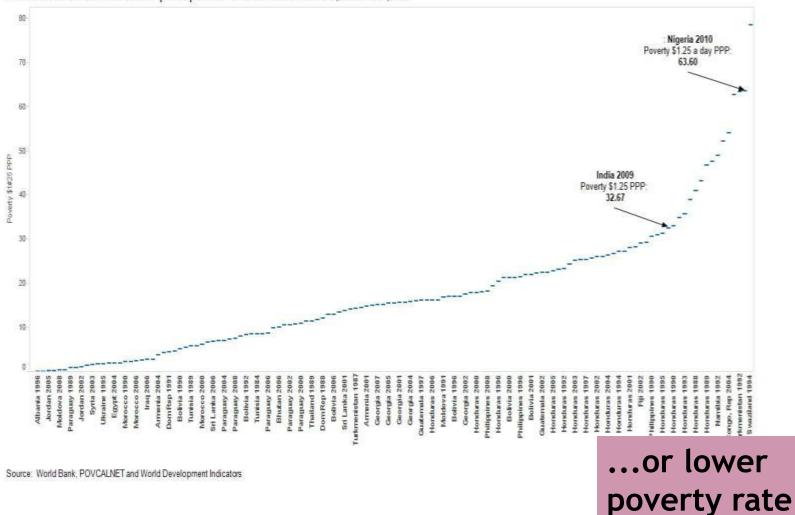
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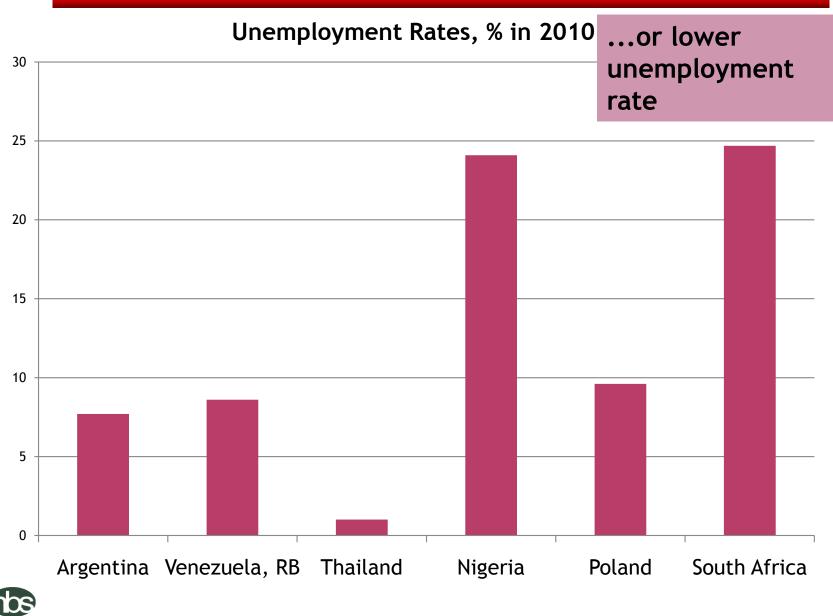


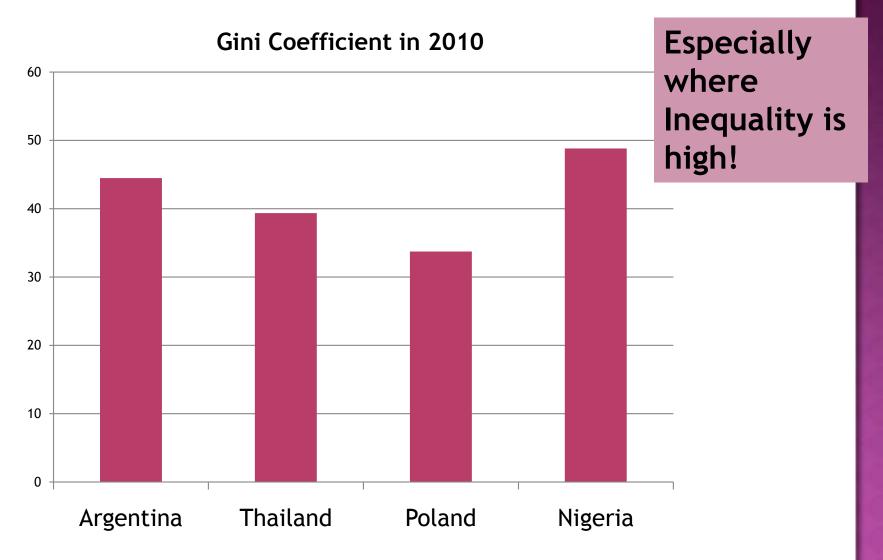


Poverty Headcount Rates at \$1.25 a day PPP For all observations where GDP per capita in PPP terms is between 2,500 and 4,500



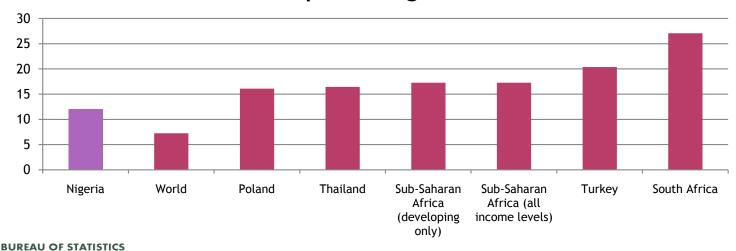






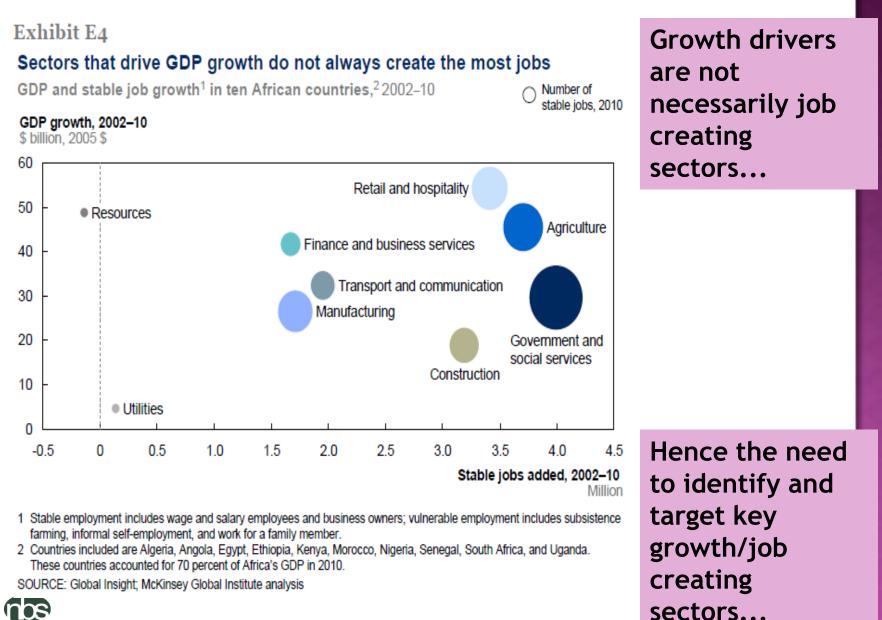


- GDP growth isn't synonymous with development
  - ...but is required for Development
  - Rising output ——> Increase in tax revenue ——> development infrastructure (public goods) ——> higher output
  - Nigeria's tax to GDP ratio is one of the lowest



Tax as percentage of GDP

### **Identifying Growth Opportunities**



# **Growth Opportunities - Fastest Growing Sectors**

#### Electricity

- 44% growth rate (2013), signifies low base of growth and opportunities for expansion
- **Recent privatisation** expected to lead to greater output
- Critical enabler to support other economic sectors
- Motion picture
  - 33% growth rate (2013)
  - Sector evolved largely without any intervention/support
  - Nollywood is 2<sup>nd</sup> largest film industry in the world
    - ahead of US, behind India
  - Average cost per movie in Nigeria is considerably lower
    - <\$0.1million compared to Hollywood (\$20million)
    - Significant opportunity for value added
    - Challenges of piracy, informality and non-registration with regulators

NATIONAL BUREAU OF STATISTICS

#### Electricity production(GWh)\*



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# **Growth Opportunities - Fastest Growing Sectors**

## Financial institutions

- 32% growth rate (2013)
- Evolved from labour-intensive & inefficient to technology-driven & more efficient
- Financial intermediation as ratio of GDP has "increased" indicating scope for more growth
- Better able to support other sectors

# Arts, entertainment and recreation

- 27% growth rate (2013)
- Includes creative art, entertainment, libraries, museum, sports and amusement activities
- Like Nollywood, high value-added
   Challenge of piracy and non-formality

Financial Services to GDP 2013 (old) series	Financial services to GDP 2013 (new series)
1.57%	3.3%
52 most in people in en	nfluential tertainment

## Growth Opportunities - Fastest Growing Sectors

# • Plastic & rubber

- 24% growth rate (2013)
- est. \$3billion revenue
- potential to regain its' major non-oil export status

• need for replanting; and strengthening value chain link with crude oil and petrochemicals industry to boost output

# Coal mining

- 21 % growth rate (2013)
- still labour-intensive , but there's room to foster a technology-aided sector
- alternative source of power generation
- informal activities considerable
- Opportunities:
  - the formalisation of the sector and
  - utilisation as power source in future







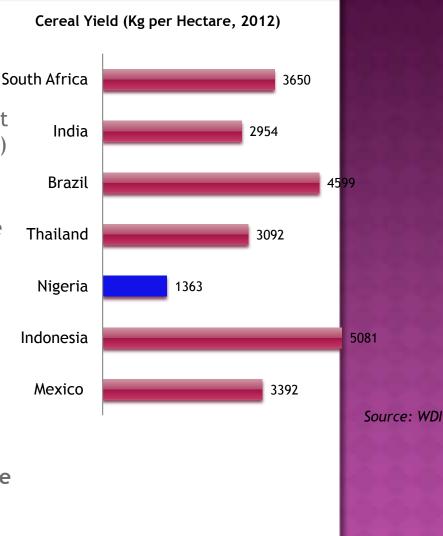
#### Growth Opportunities – Largest Contributors To Nominal GDP

## Crop production (Agriculture)

- Contribution: 20%
- Great potential for growth from expansion of farmed area: only 3.5% of Nigeria has permanent crops, yet 87.3% of land is agricultural (WB, 2011)
- Potential from growth in productivity, which in Nigeria is very low relative to other countries, producing between half and 1/3 of the cereal yields of economically similar countries
- Low quality / non-certification constraining exports to large international markets incl. EU

## Trade

- Contribution: 17%
- mainly made up of buying and selling of imported goods. If domestically produced, these goods could be cheaper, and if good enough, exported.
- Population remains an economic advantage: Middle class demand for foreign goods, low-
- national Bureau of Statistics



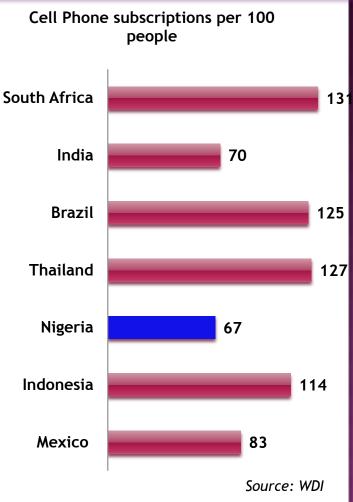
#### Growth Opportunities – Largest Contributors To Nominal GDP

# • Crude petroleum & natural gas

- Contribution: 14%
- **Refining (efficiently**) would greatly add value
- Nigeria's four refineries have the capacity to refine 445,000 bpd, although capacity utilisation is 26% (April 2014, up from just 6% in Nov 2013) (NNPC).

#### Telecomms and information services

- Contribution: 9%
- Market greater than at first glance Internet:
- **Population and demographics** is an economic advantage here
- Est.120 million devices connected, but we know many consumers own multiple devices (phones, laptop, ipad etc)
- Youthful population; largest consumers of internet, can take advantage of the value chain in the IT industry



#### Growth Opportunities – Largest Contributors To Nominal GDP

# Real estate

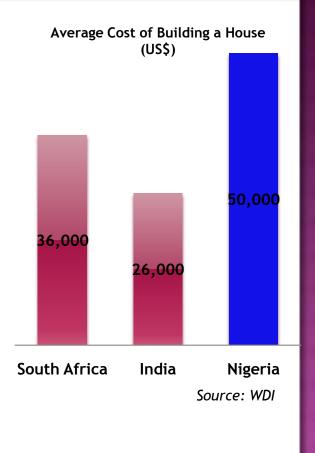
- Contribution: 8%
- Estimated housing deficit of 17m, mainly affordable housing
- Potential constraints: Financial (access to mortgages), cheap building supplies, labour.

# Food, beverage, tobacco

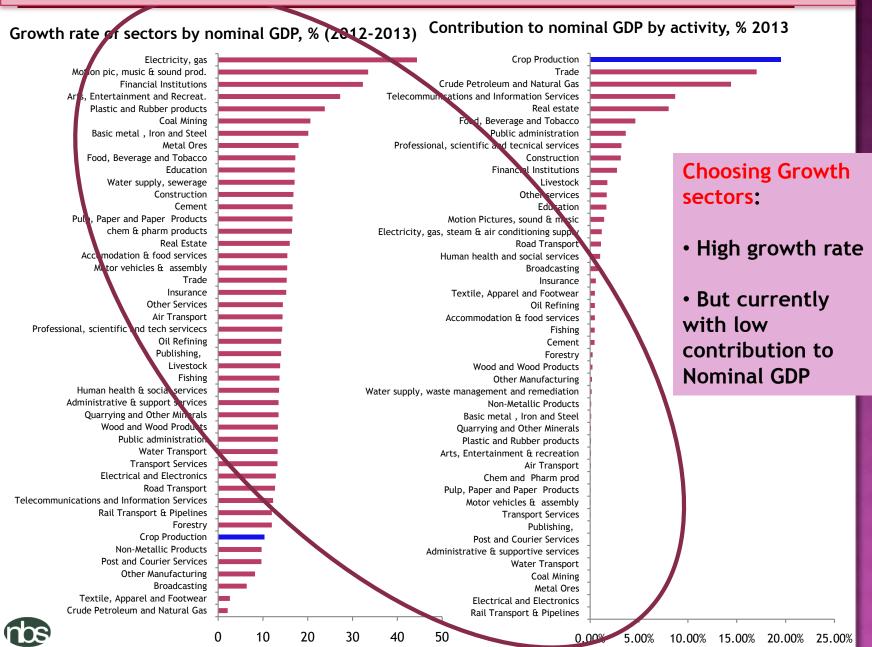
- Contribution : 5%

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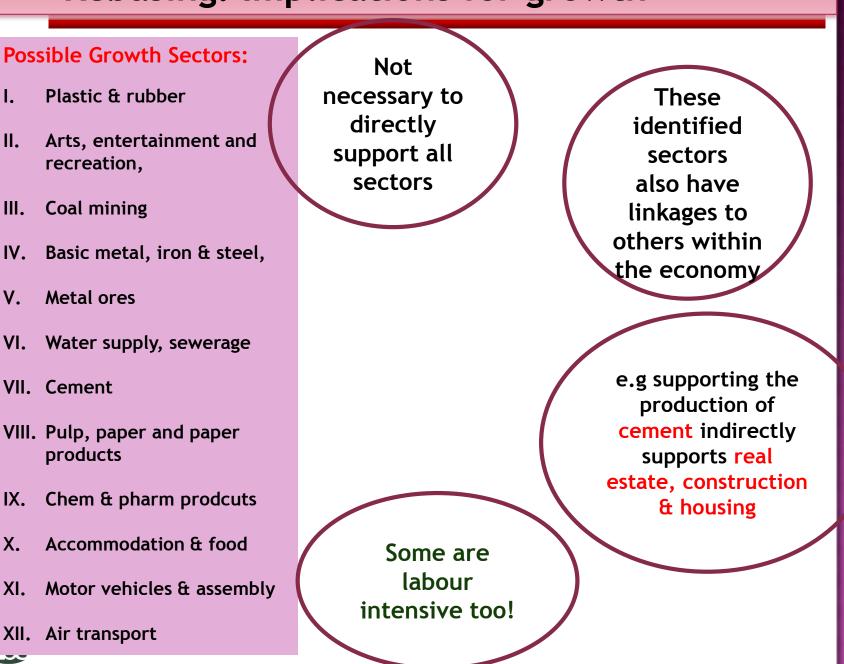
- Great domestic demand
- Growing consumer market. Some of the biggest companies are investing more money into Nigeria
  - Nestle, Diageo (Guinness) and Dufil Prima (Indomie)



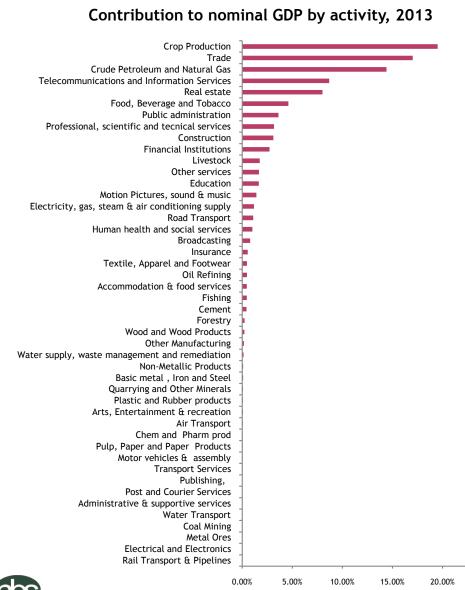
# **Rebasing: Implications for growth**



# **Rebasing: Implications for growth**



#### A closer look at the structure of the economy (by nominal GDP)



# Largest contributors to nominal GDP

- Crop production
- •trade
- •mining & quarrying
- •ICT

25.00%

- Real Estate
- •Manufacturing...

• Dominance of services

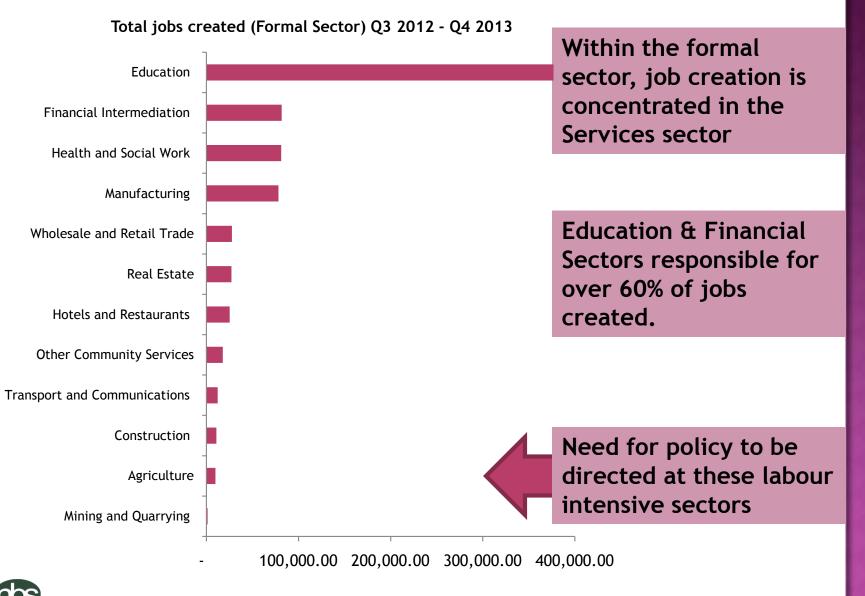
• Are these labourintensive & jobcreating sectors?

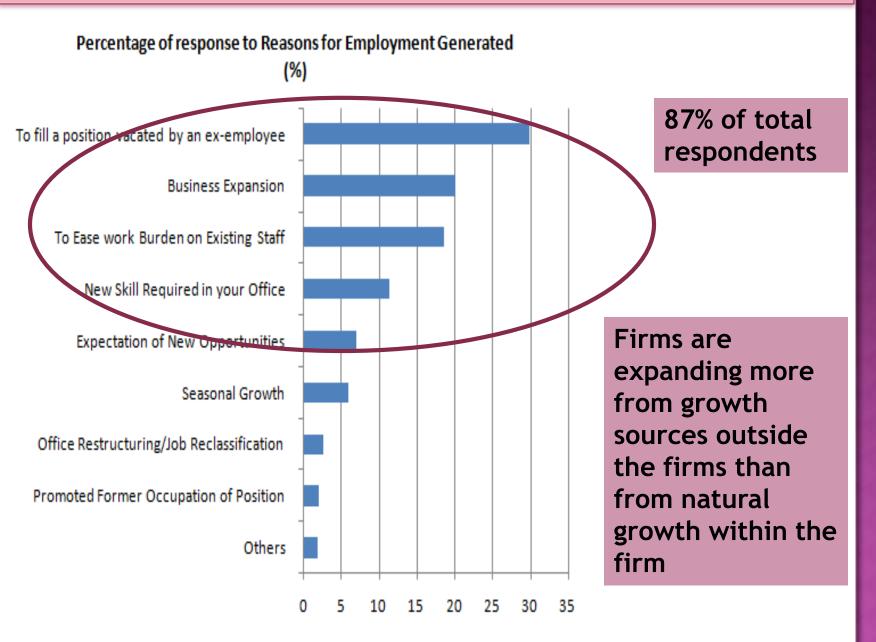


Table 1: Job Creation Survey Results								
	3rd. Quarter 2012	4th. Quarter 2012	1st. Quarter 2013	2nd Qter 2013	3rd Quarter 2013	4th Quarter 2013		Share of total jobs created
Formal Sector	164,293	152,018	174,326	80,412	76,385	101,597	749,031	38%
Informal Sector	240,359	208,920	232,327	112,567	140,673	143,278	1,078,124	54%
Public Sector	22,642	24,975	24,368	29,184	29,080	22,865	153,114	8%
Total	427,294	385,913	431,021	222,163	246,138	267,740	1,980,269	

- Most jobs created are in the informal sector
- Public sector creates the least of the three categories

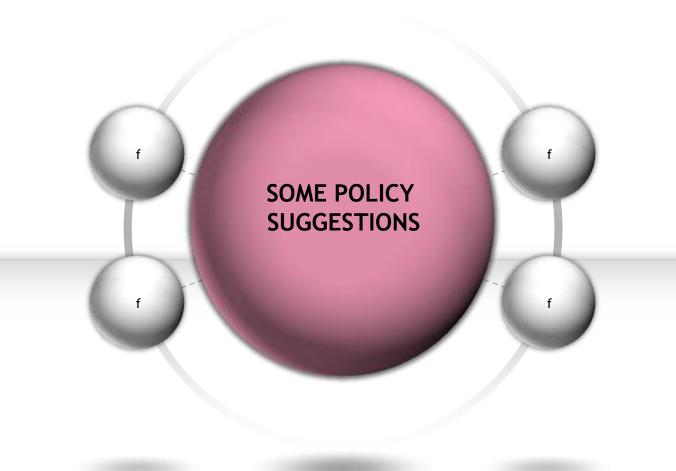
Table 2: Number of jobs created (formal sector)						
	Qtr 3	Qtr 4	Qtr 1	Qtr 3 2012-	Q3 2012 -	
Sectors	2012	2012	2013	Q1 2013	Q4 2013	Job creating
Education	90,014	76,547	68,838	235,400	376,753.92	sectors
Financial Intermediation	6,579	24,175	39,241	69,994	81,551.10	
Health and Social Work	10,298	23,552	26,827	60,677	81,104.88	
Manufacturing	22,954	8,238	11,080	42,273	78,112.48	• Largely mirrors structure of the
Real Estate, Renting and Business Activities	11,563	3,359	5,597	20,519	27,167.73	economy itself
Other Community, Social and Personal						
Service Activities	934	6,441	8,262	15,637	17,714.87	
Wholesale and Retail						<ul> <li>Dominance of</li> </ul>
Trade; Repair of Motor Vehicles and Hou	7,220	2,203	4,425	13,847	27,601.11	services
Hotels and Restaurants	5,019	3,025	3,845	11,889	25,174.95	
Transport, Storage and Communications	4,745	1,951	2,409	9,105	12,235.75	
Agriculture, Hunting, Forestry and Fishing	3,074	878	1,269	5,221	9,679.37	• Are these
Construction	1,427	1,434	2,341	5,202	10,722.41	labour-intensive & job-creating
Mining and Quarrying	465	216	193	874	1,213.35	sectors?
TOTAL NATIONAL BUREAU OF STATISTICS	164,293	152,018	174,326	490,636	749,031.92	







# **SECTION F**





#### Possible job creation strategy

- i. Identify one or more labour-intensive subsectors in which State has comparative advantage& large employer of jobs.
- ii. Improve access to finance in target sectors
- iii. Build a suitable infrastructure in those sectors and geographical areas.
- iv. Cut unnecessary regulations, bureaucracy and corruption.
- v. Develop skills in target sectors.



# Improving the Services sector...

•To support the creation of more jobs in the services sector, it is imperative that

i. sector policies that encourage formalization are introduced, as most jobs are largely informal.

ii. As more establishments are formalized, they are added to the tax-paying public, and as government tax revenues rise, the additional income can be deployed towards social and physical infrastructure.

iii. In addition, formal establishments become better able to access financial services, possibly to expand their business.



# Improving the labour-intensive sector...

•To support the creation of more jobs in the industry sector, sector strategies need to address constraints to business operations in Nigeria. Such include:

- i. Addressing production infrastructure such as electricity, transport
- ii. Supporting businesses with appropriate management, vocational and technical skills
- iii. Facilitating market access and trade opportunities
- iv. Providing access to finance
- v. Providing policy incentives to labour-intensive sectors
- vi. Supporting value chain production techniques by creating supply-demand linkages between ancillary industries, and

vii. improving business registration processes and services especially for SMEs

# **Policy Suggestions**

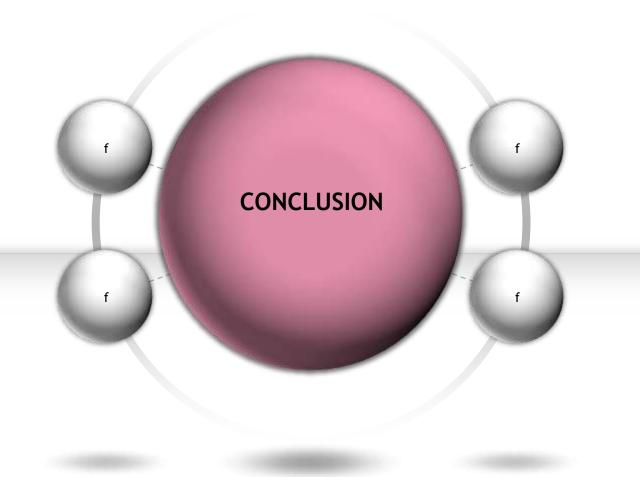
	Debt to GDP 2012 (new series)
<b>19</b> %	11%

- The ratio of public debt to GDP has declined
- Can this be an opportunity to increase public expenditure on critical infrastructure to support growth sectors?





# **SECTION E**





# Summary

- i. Observations from the structure of the economy suggest that GDP is dominated by largely capital intensive or import-dependent sectors, sectors that are not large employers of labor.
  - Eg telecommunications, oil and gas, trade, real estate.
- *ii.* Where the sector is a potential employer of labour, constraints to productivity such as antiquated practices or infrastructure constraints limit expansion and hence job creation.
  - such as agriculture, manufacturing
- *iii.* New GDP reveals huge potential for much needed tax revenue.

*iv.* Policies designed to formalize the huge informal nature of our GDP will be beneficial.



# CONCLUSION

 to reduce poverty and improve the welfare of Nigerians

GOAL

- It will not make poverty and unemployment disappear overnight ...
- but it will give us the tools, the policy ability
- Rebased GDP numbers imply that the level of economic activity is much higher than previously reported
- indicates a clearer picture of Nigeria's economic landscape, and the significant opportunity for growth and wealth creation



## THANK YOU FOR YOUR ATTENTION!

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