

Labor Productivity

(Q4 2016)

Report Date: June 2017

Labour Productivity Report - Q4 2016

Introduction



NATIONAL BUREAU OF STATISTICS

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Introduction

Among important measures of the wellbeing of an economy, is the level and growth of economic output, commonly known as the Gross Domestic Product (GDP). However, economists and policy makers are also interested in the factors of production that are used in generating such output, as well as the level of efficiency associated with those inputs. The productivity of inputs, for example, capital and labour, used in the production process is an important indicator of the relationship between overall economic output and other aspects of the economy, such as the labour market, the money market, the capital market etc.

The efficiency of inputs, or more technically, total factor productivity, refers to the amount of input required to produce a unit of output. It is typically computed as a ratio of output to the input utilised. While the total factor productivity for an economy can be computed this way, this can often be a difficult task, and a more specific and commonly used measure of productivity is labour productivity. Specifically, labour productivity refers to the quantity of labour input required to produce a unit of output. This is often the case, even though it is recognised that labour is NOT the only input utilised in the production process. High labour productivity can be an important signal of the improvement in real incomes (wages of labour). It also has implications for the conduct of both monetary and fiscal policies. It is recognised that labour productivity is not necessarily an indicator of the effort of each worker, but it still provides a useful measure of the rewards to labour as a factor in the production process. In many developing economies with large endowments of labour, measuring the productivity of labour is an important way to understand the dynamics occurring in the labour market, and useful in providing insights to policymakers regarding trends in unemployment, job creation and wages. Ultimately, these have implications for higher economic output and poverty reduction.

Economic growth in Nigeria, though stable in the past few years, started to experience some a downward trajectory in the fourth quarter of 2014. In the fourth quarter of 2016, Nigeria economy, though showing signs of recovery, recorded its 4th consecutive quarter of negative growth, with the economy declining by 1.58%. The constraints on productivity of labour and other factor inputs continues to put a drag on overall economic growth and this was further exacerbated in the fourth quarter of 2016. A growing unemployment rate of 14.2% in the 4th quarter, up from 13.9% in the 3rd quarter, coupled existing infrastructural challenges, remain considerable threats to realising Nigeria's full economic and productivity potentials. The purpose of this brief report is to review recent trends in labour force and labour productivity in Nigeria, with a view to highlighting possible areas of interest in the analysis of labour productivity in Nigeria.

Data

Data used for this report are from the National Bureau of Statistics Labour Force Surveys, as well as the OECD EuroStat database 1. For our purposes, labour productivity is derived as the ratio of total output (annual GDP, current prices) to labour input (total hours worked per year).

Equation : Labour Productivity Formula

$$\text{Labour Productivity} = \frac{\text{GDP}_{\text{Year } N}}{\text{Labour input}_{\text{Year } N}}$$

Analysis

Table 1 shows the annual trend in total GDP, number of hours worked as well as the derived labour productivity for the period 2011 – 2016. Labour productivity rose from N471.94 in 2011 to N684.43 in 2016, this represents a 45.0% increase in labour productivity over the 6-year period and a decline of 4.7% between 2015 and 2016.

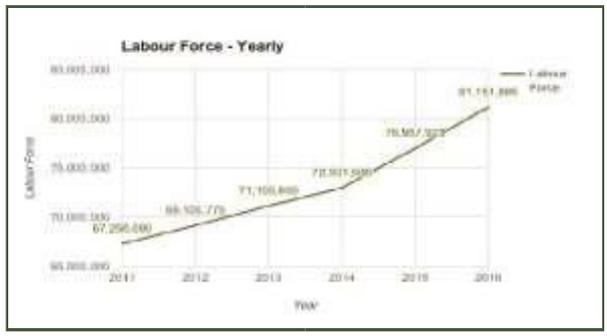
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Year 2016



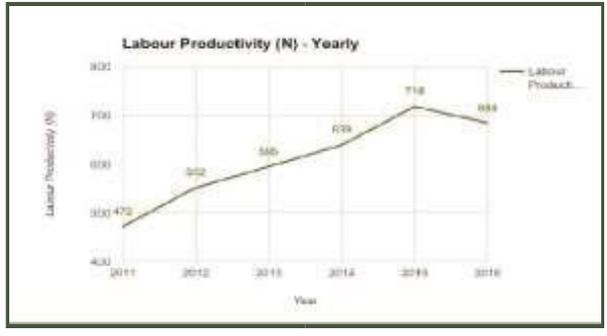
Labour Productivity

\$ 2.24



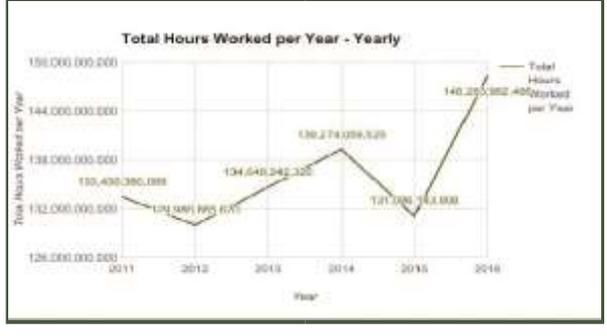
Labour Force

81,151,885



Labour Productivity

N 684. 4265342



Total Hours Worked per Year

148,283,982,466



GDP at Current Price

N101,489,492,201,986

Table 1 : Gross Domestic Product, Labour Force and Labour Productivity (2011 - 2016)

Year	Labour Force	GDP at Current Price (N)	Total Hours Worked per Year	Labour Productivity (N)	Labour Productivity (\$)
2011	67,256,090	62,980,397,224,985	133,450,380,069	471.9386876	2.98
2012	69,105,775	71,713,935,062,172	129,986,885,620	551.7013099	3.51
2013	71,105,800	80,092,563,380,000	134,648,242,320	594.8281389	3.78
2014	72,931,608	89,043,615,256,190	139,274,059,525	639.3409911	3.77
2015	76,957,923	94,144,960,450,000	131,096,143,908	718.1367632	3.61
2016	81,151,885	101,489,492,201,968	148,283,982,466	684.4265342	2.24

Figure 1 : Annual Labour Productivity Trend 2011 - 2016

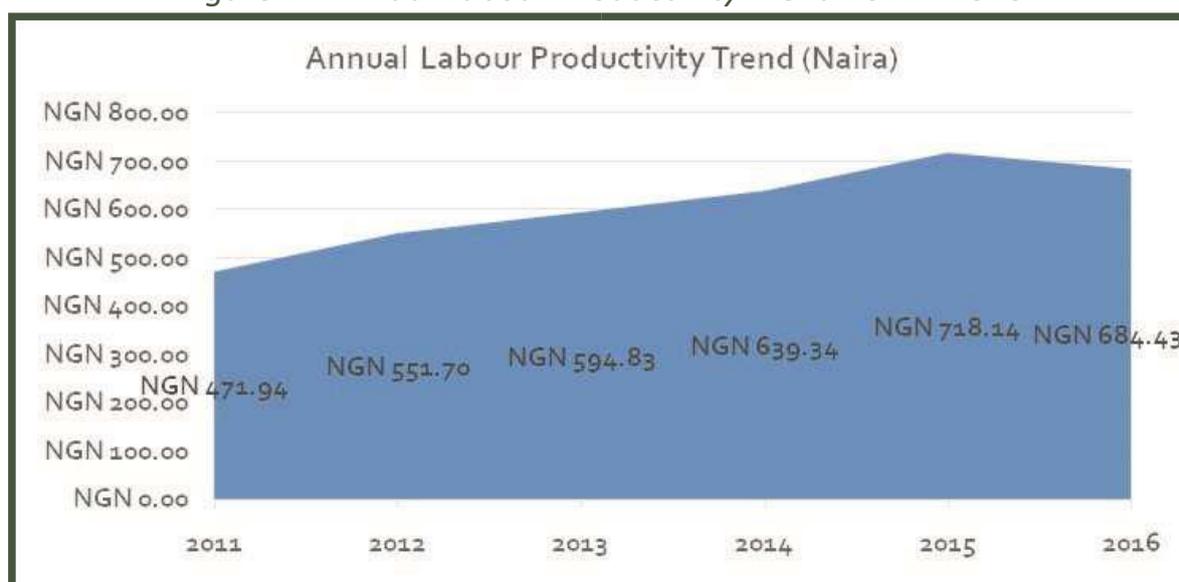
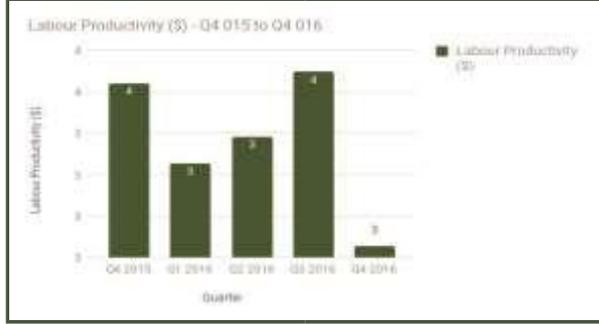


Table 2 below reveals the quarterly path of these variables between Q4 2015 and Q4 2016. Labour productivity increased to N783.51 in Q4, 2016 from N713.77 in Q3, N636.30 in Q2, N605.27 in Q1 and N706.95 in Q4, 2015. Thus, for the period under review, labour productivity increased by 9.8% on quarterly basis and 10.8% year on

year. The estimated total number of hours worked increased by 0.48% between Q3 and Q4, 2016, and increased 1.9% between Q4, 2015 and Q4, 2016.

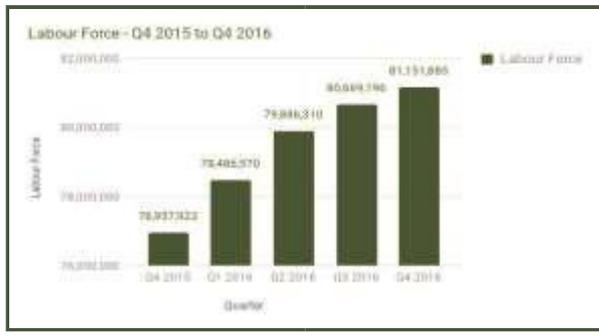
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Q4 2016



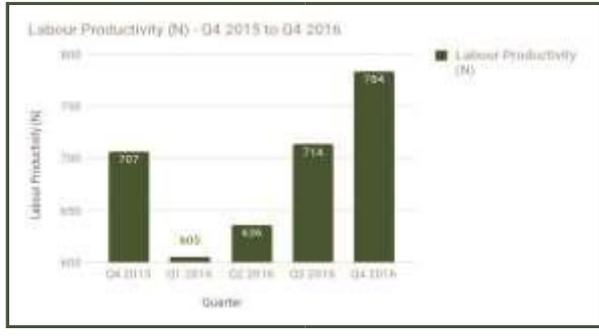
Labour Productivity

\$ 2.57



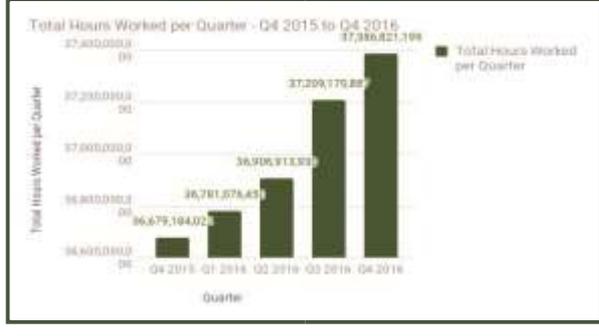
Labour Force

81,151,885



Labour Productivity

N 783.51



Total Hours Worked per Quarter

37,386,821,199



GDP at Current Price

N29,292,998,535,880

Table 1 : Gross Domestic Product, Labour Force and Labour Productivity (2011 - 2016)

Period	Labour Force	GDP at Current Price (N)	Total Hours Worked per Quarter	Labour Productivity (N)	Labour Productivity (\$)
Q4, 2015	76,957,923	25,930,469,410,000	36,679,184,022	706.95	3.55
Q1, 2016	78,486,570	22,262,575,973,806	36,781,076,450	605.27	3.07
Q2, 2016	79,886,310	23,483,954,783,733	36,906,913,930	636.30	3.23
Q3, 2016	80,669,196	26,558,952,834,963	37,209,170,887	713.77	3.62
Q4, 2016	81,151,885	29,292,998,535,880	37,386,821,199	783.51	2.57

Figure 2 : Labour Productivity (Q4, 2015 – Q4, 2016)

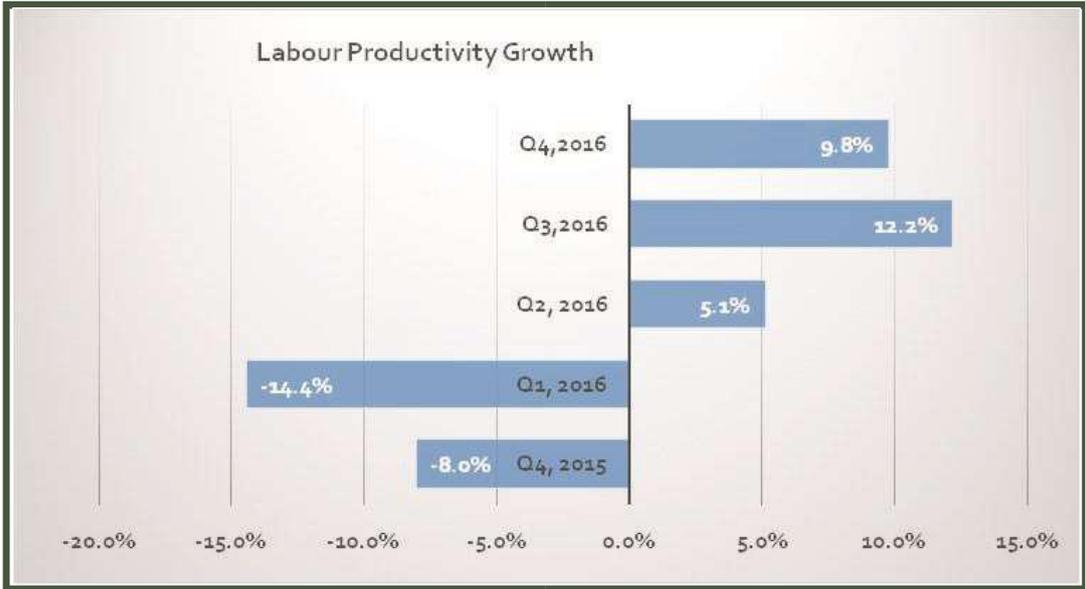


Q4 2016 saw a rise in labour productivity, the highest levels since Q1, 2015. While the overall level of productivity was high, there were several challenges that generally impacted on output and labour, and indirectly on labour productivity, keeping it below optimal levels. Some of these issues faced during the quarter were issues that spilled over from Q1 through Q2 and Q3, 2016. Investment in the economy was still relatively low, though some

government investments were recorded during the quarter, the volume of private investment and foreign direct investments was still considerably low compared to previous years. Power was relatively stable during the quarter, which partly accounted for the increase in Labour productivity but was still lower than the required levels.

Though there was a contraction in the economy in Q4 in real terms, which was accompanied by an increase in the unemployment rate, the growth in labour productivity implies a gradual increase in labour efficiency employed in the economy, the third consecutive quarterly rise. The nature of productivity in the fourth quarter also gives an idea of the main drivers of the growth in labour productivity. The Agriculture sector recorded a growth of 3.39%, the highest among any major economic activity, with the parts of the fourth quarter being the harvest season in the Nigerian agricultural calendar, this may well have added to the growth in labour productivity in Q4, 2016. Other major activities that contributed to productivity during the quarter are Transportation and the Creative Sectors of the economy, though both activities relatively low weights compared to other activities like Agriculture, their strong growth during the quarter and the high number of labour they engage would have contributed to the labour productivity during the quarter.

Figure 3: Labour Productivity Growth Rates (Q4, 2015 - Q4, 2016)



Acknowledgements/Contacts

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