

LABOUR PRODUCTIVITY REPORT Q₃ 2016



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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 third quarter of 2016, Nigeria recorded its 3rd consecutive quarters of negative growth, with the economy declining by 2.24%. 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

third quarter of 2016. A growing unemployment rate at 13.9%, coupled with high exchange rates and infrastructure challenges, the Nigerian economy faces a considerable threat to realising its full growth potential due to productivity challenges.

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 1: Labour Productivity Formula

$$\textit{Labour productivity} = \frac{\textit{GDP}_{\textit{Year N}}}{\textit{Labour input}_{\textit{Year N}}}$$

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 – 2015. It can be seen that labour productivity rose from about N471.94 in 2011 to N718.14 in 2015, this represents a 52.5% increase in labour productivity over the 5-year period and a 12.2% between 2014 and 2015.

Table 1: Gross Domestic Product, Labour Force and Labour Productivity (2011 - 2015)

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	471.94	2.98
2012	69,105,775	71,713,935,062,172	129,986,885,620	551.70	3.51
2013	71,105,800	80,092,563,380,000	134,648,242,320	594.83	3.78
2014	72,931,608	89,043,615,256,190	139,274,059,525	639.34	3.77
2015	76,957,923	94,144,960,450,000	131,096,143,908	718.14	3.61

Figure 1: Labour Productivity Trend 2011 – 2015



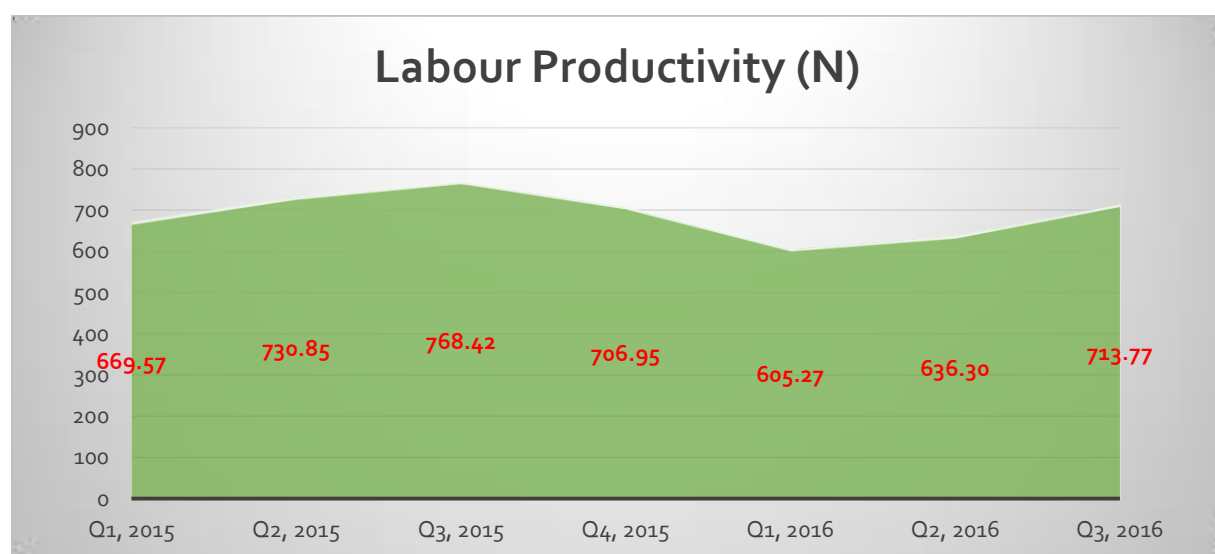
Table 2 below reveals the quarterly path of these variables between Q1 2015 and Q3 2016. Labour productivity increased to N713.77 in Q3 2016 from N637.5 in Q2 2016, and N768.42 in the same quarter of 2015. Thus, for the period under review, labour productivity

increased by 12.2% on quarterly basis but declined by 7.1% year on year. The estimated total number of hours worked increased by 0.82% between Q2 and Q3, 2016, and increased 17.6% between Q3 2015 and Q3 2016. Nominal GDP increased by 13.09% over the previous quarter and increased by 9.23% year on year.

Table 2: Gross Domestic Product, Labour Force and Labour Productivity Q1, 2015 – Q3, 2016

Period	Labour Force	GDP at Current Price (N)	Total Hours Worked per Year	Labour Productivity (N)	Labour Productivity (\$)
Q1, 2015	73,436,104	21,041,701,096,899	31,498,689,736	669.57	3.5
Q2, 2015	74,010,602	22,859,153,010,296	31,277,355,014	730.85	3.71
Q3, 2015	75,940,402	24,313,636,940,000	31,640,915,136	768.42	3.86
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

Figure 2: Labour Productivity (Q1, 2015 – Q3, 2016)



LABOUR PRODUCTIVITY IN NIGERIA

Q3 2016

LABOUR PRODUCTIVITY TREND

N713.8

Labour productivity rose to N713.8 in Q3 2016 from N638 in Q2 2016.

12.2%
quarter on quarter

-7.1%
year on year



Though there was a rise in labour productivity in 2016, the overall level was low when compared to the same period last year.

A number of output and labour challenges from Q1 & Q2 indirectly impacted on labour productivity in Q3 2016.

The volume of private investment and foreign direct investments was still considerably low compared to previous years.

The improvement in power throughout the quarter partly accounted for the increase in productivity.

Though there was a contraction in the economy in Q3 in real terms accompanied by an increasing unemployment rate, the growth in labour productivity implies a gradual increase in labour efficiency employed in the economy.

Moreover, the 4.5% Growth in the Agric sector in Q3 due to the harvest season might have added to the growth in labour productivity in Q3, 2016.



The estimated total number of hours worked increased

0.82% **17.6%**
quarter on quarter year on year



Nominal GDP increased

13.09% **9.23%**
quarter on quarter year on year

Labour productivity refers to the quantity of labour input required to produce a unit of output. This is derived as the ratio of total output (annual GDP, current prices) to labour input (total hours worked per year).



In Q3 2016, though there was a rise in labour productivity, the overall level was low when compared to the same period last year. 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 spilled over from Q1 through Q2 and to 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 throughout the quarter, which partly accounted for the increase in Labour productivity. Though there was a contraction in the economy in Q3 in real terms accompanied by an increasing unemployment rate, the growth in labour productivity implies a gradual increase in labour efficiency employed in the economy, the second consecutive quarterly rise. The nature of productivity in the third quarter also gives an idea of the main drivers of the growth in labour productivity. The Agriculture sector recorded a growth of 4.5%, the highest among any major economic activity, with the third quarter being the harvest season in the Nigerian agricultural calendar, this may well have added to the growth in labour productivity in Q3, 2016. Other typically labour intensive sectors like human health and social services as well as accommodation and food services, together with agriculture accounted for the most jobs created in Q3 2016

