CONSUMER PRICE INDEX AND INDUSTRIAL PRODUCTION OUTPUT: EMPIRICAL EVIDENCE FROM NIGERIA: 1981-2022

[1]Nwokorobia, Chigozie Remiguis and [2]Okonkwo, Ikeotuonye Victor
[1&2]*Department of Banking and Finance, Nnamdi Azikiwe University, Awka Anambra State Nigeria.*
E-mail:nwokorobiachigozie4@gmail.com

Abstract
This work examined the relationship between consumer price index and industrial production output in Nigeria: 1981-2022. Diversifying the Nigeria's economy away from mono-product economy has been the target of policies of development to promote non-oil exports, and increase industrial production outputs given the increasing needs of the population. Yet, demand for the products of the industries has been discouraging for the industries given the unstable and frustrating consumer price index. Thus, the government policies and strategies aimed at accelerating industrialization of the nation may not have achieved the desired goals. The work proposed that consumer price index had impeded industrial production in Nigeria. The data were sourced from World Bank financial indicators website and Central Bank of Nigeria statistical bulletin. The models' parameters were estimated using ordinary least square method. The empirical results revealed that consumer price index (CPI) had positive significant elationship with manufacturing Sector Output (MSO) in Nigeria; and that consumer price index (CPI) had negative significant relationship with manufacturing Sector Output contribution to Gross Domestic Product (MSOCGDP) in Nigeria. The study concluded that the economic managers of Nigeria had not performed creditably in controlling consumer price index. The study recommended among others for frugal government spending; Government actions should promote culture of diligence and productivity; the Central Bank of Nigeria should sustain schemes of development finance that should promote value addition to agricultural produces and storage thereby guaranteeing food supply and price stability against vagaries of nature and global shocks that affect food production and security.
Keywords: *Consumer Price Index, Manufacturing Sector Output, Inflation rate, industrialization*

Introduction
The Nigeria as a nation desires to be counted among the prospering nations. This has been expressed in previous development plans of Nigeria, and the new long-term national development plan, Nigeria Agenda 2050 (NA 2050) wherein the Federal Government of Nigeria aims to ensure that the country attains a per capita Gross Domestic Product of $33,328 per annum, placing her among the top middle-income economies in the world by 2050. The development plans have always indicated industrialization vision and improved living standard of Nigerians. The first National Development Plan for the period 1962-68 adopted strategy then was import-substituting industrialization (ISI) with the objective of mobilizing national economic resources and deploying them on a cost/benefit basis among contending projects as a systematic attempt at industrial development. The second national development plan (1970-1974) addressed the limitations of the ISI strategy, and placed emphasis on 'the upgrading of local production of intermediate and capital goods for sale to other industries'. The period of the 1970-1974 Plan also witnessed a dramatic shift in policy from private to public sector-led industrialization. The 1972 Act on Indigenization of Enterprises operating in Nigeria resulted in an indigenization policy which was subsequently amended, repealed, and replaced by the Nigerian Enterprises Promotion Act of 1977.

The Third National Development Plan (1975-1980) was launched at the height of the oil boom. The plan envisaged an investment outlay of 42 billion NGN (up from 3.2 billion NGN of the Second Plan) with emphasis on public sector investment in heavy industries. The Fourth National Development Plan (1981-1985) coincided with the inception of a global economic recession which sparked declining foreign exchange earnings, balance of payment disequilibrium and unemployment in the Nigerian economy. In 1990, government effort to consolidate the gains from SAP led to the adoption of the National Rolling Plans beginning with the 1990-1992 rolling plan. The fifth National Development Plan (1988-1992) aimed at devaluing naira, removing import licenses, reducing tariffs, opening the economy to foreign trade, promoting non-oil exports through incentives and to achieve national self-sufficiency in food production. The national development plan of 2021-2025 focused on infrastructure, diversification, rural investment and education. It adopted an integrated and multi-sectorial development approach recognizing issues of sustainable development in every development programmes.

The total productivity level of the Nigerian manufacturing sector over time has witnessed a drop in production as well as profitability. There had been a real negative trend in the industrial/manufacturing sector productivity growth. Some of the barriers to the growth of the sector include high interest rates, low investment in the sector, poor political will, high cost of equipment and machinery, as well as high exchange rate which affected cost of importing sophisticated equipment and raw materials where needed. Others are apathy of private agents towards investing in the sector, infrastructural deficits, and inadequate access to cheap funding as well as unavailability of and/or expensive requisite manpower.

The word ‘manufacturing sector output’ and ‘industrial production output’ can be used interchangeably and should mean the same thing in the context of this work. In Nigeria, the industrial production sector has been favoured with various public sector supports and incentives since it is believed to be the main instruments of rapid growth, structural changes and self-sufficiency in the Nigerian economy. Some of these supports had been in the form of heavy public sector investment, import substitution strategy, access to low cost funds, tax incentives, and access to foreign exchange for inputs importation. In recent times, the Central Bank of Nigeria had implemented development finance schemes that favoured industrial sector. Among the schemes were the ₦500 billion non-oil export stimulation facility (NESF), and ₦300 billion Real Sector Support Facility (RSSF) designed to give exporters access to concessionary finance and to attract new investments in value-added non-oil export promotion. The Commercial Agriculture Credit Scheme (CACS), Creative Financing Initiative (CIFI) and the Micro, Small and Medium Enterprises Development Fund (MSMEDF) are among the initiatives of the CBN (CBN, 2022). Despite these various efforts, the industrial production sector in Nigeria seems to be at the cross roads. This sector had been bedeviled with inefficient resources usage, intensified foreign exchange constraints, high costs, security challenges, poor social infrastructures, balance of payment difficulties and rising cost of living.

According to Wikipedia (2023) there can be three major sectors of an economy: primary sector, secondary and tertiary. The primary sector includes agricultural production producing basic commodities such as raw materials say crude oil, coal, crude palm oil, natural gas , gold, iron ore; and food such as cocoa, coffee, cashew nuts, cassava, yams, and rubber. The

secondary sector can be termed the manufacturing sector producing goods like clothing, shoes and household items, machinery, vehicles and high quality goods for export. The tertiary sector is the services sector, that is, those involved in construction, healthcare, financial services, telecommunications, transportation, and communication.

The concern of this paper is on manufacturing sector. The Manufacturers Association of Nigeria observed that the capacity utilization of the sector declined to 54.9% in 2022 about 4.1 % decline from 59% of 2021(https://sunnewsonline.com May 2 2023). It contributed only 32.346 trillion to Nigeria economy since 2018 (2018-2021) which is about 9% to the GDP in five years (https://www,vanguardngr.com 6 June, 2023). Moreso, it has been observed of misallocation of resources in Sub-Saharan Africa and Nigeria in particular, given that manufacturing is a rather small fraction of the economy in these countries (Abreha,*et al.*, 2021).

The worrisome rise in consumer price index constituted further challenge that shall limit the capacity utilization of the manufacturing sector. The Consumer Price Index (CPI) actual as at May 2023 was ₦547.50 against ₦537.00 in March, 2023 (NBS, 2023). This is expected to rise with the removal of fuel subsidy in Nigeria.

The purpose of the study was to assess how the CPI has related and influenced manufacturing sector output in Nigeria. Two null hypotheses proposed were: CPI has no significant relationship with manufacturing sector output in Nigeria; and CPI has no significant relationship with manufacturing sector contribution to Gross Domestic Product in Nigeria.

The subsequent sections of this work include: conceptual and theoretical review; and empirical review of related works. Other sections were methodology and datapresentation; discussions, conclusion and recommendations.

Conceptual review

Stages of Industrial Revolution:

Industrial Revolution means complete change in the methods of production of goods. It may be defined as 'Industrial Revolution' the name given to the technological and economic changes that gathered strength and speed during the eighteenth century and continuing in nineteenth and twentieth century has produced modern large scale production and business organizations (Meenakshi Jain, nd). According to Wikipedia (2022) the world is in the fourth industrial revolution (aka Industry 4). **The first Industrial Revolution of 1765** followed the proto-industrialization period. It started at the end of the 18th century to the beginning of the 19th. The biggest changes came in the industries in the form of mechanization. **The second Industrial Revolution of 1870** started at the end of the 19th century, with massive technological advancements in industries that helped the emergence of a new source of energy—electricity, gas, and oil. This revolution resulted in the creation of the internal combustion engine that started to reach its full potential. Other important points of the second industrial revolution were the development of steel demand, chemical synthesis and methods of communication such as the telegraph and the telephone. Finally, the inventions of the automobile and the plane at the beginning of the 20th century are the reason why, to this day, the Second Industrial Revolution is considered the most important one! **The Third Industrial Revolution of 1969** started in the second half of the 20th century. It saw the emergence of

nuclear energy and rise of electronics, telecommunications and computers. The third industrial revolution opened the doors to space expeditions, research, and biotechnology through the new technologies. And the Fourth Industrial Revolution (aka **industry 4.0)** is building on the Third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres. (Wikipedia, 2022).

> *There are three reasons to suggest herald of fourth industrial revolution. These are velocity, scope, and systems impact following transformations in industries and ways of doing businesses. The speed of current breakthroughs has no historical precedent. Thus, when compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace. Moreover, it is disrupting almost every industry in every country. And the breadth and depth of these changes herald the transformation of entire systems of production, management, and governance.*
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> *Industry 4.0 is the fourth Industrial Revolution. The magnitude is yet unknown. Industry 4.0 started at the dawn of the third millennium with the one thing everyone uses every day - the Internet. In fact, the transition from the first industrial revolution rooted in technological phenomena to Industry 4.0 that develops virtual reality worlds, is allowing exceptions to the laws of physics. The internet of things and artificial intelligence are making waves in the global ways of doing things. (Wikipedia, 2022)*

Industrialization and manufacturing output:

Industrialization is the process by which an economy is transformed from a primarily agricultural one to one based on the manufacturing of goods. Most pre-industrial economies had standards of living not much above subsistence, among that the majority of the population were focused on producing their means of survival. For example, in medieval Europe, as much as 80% of the labour force was employed in subsistence agriculture. Some pre-industrial economies, such as classical Athens, had trade and commerce as significant factors, so native Greeks could enjoy wealth far beyond a sustenance standard of living through the use of slavery (Akrigg, 2019).

Manufacturing has to do with transforming raw materials into finished goods for sales through the use of tools, machines and labour. The manufacturing output therefore is a measure of all the goods and services produced in a given time period say one year by firms in the industry and sold to consumers or other customers say businesses and non-profit making entities.

Inflation Rate

Inflation is sustained rise in price level over time. And, inflation rate refers to the purchasing power of a national currency over time. It means continuous rise in general price level of goods and services in an economy; and is of primary concern to all stakeholders. Inflation even in the absence of economic shock, displays the tendency of reproducing itself from one period to the next. In other words, inertial inflation is when all prices keep rising because of past inflation, despite the lack of structural reasons for that to happen. The inflation rate relates to the cost of living inflation which is the change in spending by households required to maintain a given standard of living, while CPI measures price changes over time of a market basket of consumer goods and services.

Consumer Price Index

The Consumer Price Index (CPI) is an index that measures the rate at which the prices of consumption goods and services are changing from one period to another. It is a measure of price changes of the goods and services purchased by households in their role as urban consumers. The prices are collected from shops or other retail outlets in urban areas. In some instances, it is used as a proxy measure for inflation probably because of the frequency and timeliness with which it is produced. However, for some obvious reasons, the CPI is not considered as the best measure of inflation in that it excludes some items from its computation. The CPI can rather be described as indicator of consumer inflation (Aiyedogbon&Anyanwu, 2015).

The CPI is related to cost of living index, that is, the level of expenditure needed to achieve a standard of living attained previously say in a base period at current market prices. It is worth noting that the price changes do not necessary mean better living for the region or state or city with lower CPI. Better access to education, transportation, health, security, food, and ease of doing business are additional factors to explain living standard.

In computing the CPI, a base year must be established. The base year is the year when the time series of index values is normalized to 100. The base year becomes the basis for computing increase or decrease of CPI. The literal steps to compute CPI consists of gathering prices of qualifying goods and services in the past period; collecting prices of similar goods and services in current period; sum the product prices; divide the current product price total by the past price total; multiply the score by 100; and covert into a percentage.

The CPI has become a key statistic for purposes of economic policymaking, especially monetary policy (CBN, 2020). It can therefore have substantial and wide-ranging financial implications for governments and businesses, as well as for households. Of course, the situation of the CPI could require for changes in mode of doing businesses, adoption of technology, escalation of wage adjustments, tax adjustments, provision of subsidies and social palliatives.

Empirical review

Aiyedogbon and Anyanwu (2015) did a study on the Macroeconomic Determinants of Industrial Development in Nigeria. The work used secondary data series ranging from 1981 to 2013. The proxy for the endogenous variable is the industrial production index and the exogenous variables were the Exchange Rate (EXR), Consumer Price Index (CPI), nominal Interest Rate, Broad Money Supply, Foreign Direct Investment, Credit to Manufacturing Sector and the Gross Domestic Product. The study made use of the ordinary least square (OLS) statistical tool of analysis in estimating the parameters of the model. The findings revealed that consumer price index, broad money supply and credit to manufacturing sector exerted negative impact on industrial development in Nigeria. On the other hand, the impact of exchange rate, interest rate, FDI and real GDP on industrial production index were positive. Unfortunately, only the exchange rate variable was statistically significant at 5% level in the forecasted model.

Odior (2013) investigated the impact of macroeconomic factors on manufacturing productivity in Nigeria over the period 1975-2011. The dependent variable was the manufacturing sector productivity (MAP) and the independent variables were the Exchange Rate (EXR), Consumer Price Index (CPI), Interest Rate (INT), Credit to the Manufacturing

Sector (CMS), Broad Money Supply (M2) and Foreign Direct Investment (FDI). Secondary data were used. The stochastic characteristics of each time series were tested for their stationarity using Augmented Dickey Fuller (ADF) test, and error correction mechanism model was estimated. Ordinary Least Square (OLS) regression technique was employed in the analysis. The result revealed the presence of a long-term equilibrium relationship, as evidenced by the cointegrating equation of the VECM and concluded that credit to the manufacturing sector in the form of loans and advances and foreign direct investment had the capacity to sharply increase the level of manufacturing productivity in Nigeria, while broad money supply had less impact.

Khamfula, (2004) studied the Macroeconomic Policies, Shocks and Economic Growth in South Africa. The broad objective of the study was to investigate whether economic policies employed in South Africa as at the time of the study was consistent with the theoretical views of how policy would affect economic growth. How strong is the case that macroeconomic policies have large effects on the growth of South African economy? The variables used to represent macroeconomic policies were government expenditure, income tax rate, nominal interest rate, inflation target, foreign aid and domestic credit. The model was estimated using the simultaneous-equation system. The results showed that real income growth was positively related to gross domestic savings, changes-in-the-money-stock variable, total mining production and its own past values. But the growth in real income was negatively related to imports, total government expenditure, tax, USA interest rate, changes in the USA CPI and changes in the South African nominal interest rate; changes in the real effective exchange rate were negatively related to changes in the money stock and its own past values and positively related to changes in the foreign price and domestic nominal interest rate; and that net investment was significantly positively influenced by imports expenditure, domestic interest rate and its own past values.

Doguwa (2019) studied the Inflation and Economic Growth in Nigeria: Detecting the Threshold Level. Using secondary data sourced from National Bureau of Statistics and Central Bank of Nigeria, and applying regression techniques the work showed that there were a noticeable and consistent inflationary trajectory towards the upper band of the inflation threshold of 12 percent in Nigeria.

Methodology and Data Presentation

The study adopted the *ex-post-facto* research design. The data were sourced from the World Bank Indicators, National Bureau of Statistics and the Central Bank of Nigeria statistical bulletin. This study proposed as follows: CPI = f (MSO, MSOCGDP):

Thus, logCPI = $\alpha_0 + \alpha_1$logMSO + μ

logCPI = $\alpha_0 + \alpha_1 log$MSOCGDP + μ

CPI = Consumer Price Index

MSO = Manufacturing Sector Output

MSOCGDP = Manufacturing Sector Output contribution to Gross Domestic Product

α_0 = Constant Parameter:

α_1, α_2 = Co-efficient of the parameters

μ = Random disturbance

The variables were tested for stationarity using the Augmented Dickey Fuller test (ADF) and the model parameter were estimated using regression technique: least square method. The hypothesis that CPI have no significant relationship with MSO and MSOCGDP was test at 5% level of significance.
The input data used in this study were attached in Appendix A. The descriptive statistics of the variables: CPI, MSO, and MSOCGDP were displayed in Table 1.

Table 1: Descriptive Statistics of the input variables

	CPI	MSO	MSOCGDP
Mean	76.81707	22.64293	14.31927
Median	36.62000	15.53000	13.93000
Maximum	354.3000	64.41000	21.10000
Minimum	0.510000	5.100000	6.550000
Std. Dev.	93.19731	15.95346	5.035901
Skewness	1.380992	1.004346	-0.028526
Kurtosis	4.031065	2.920362	1.408676
Jarque-Bera	14.84824	6.903696	4.331591
Probability	0.000597	0.031687	0.114659
Sum	3149.500	928.3600	587.0900
Sum Sq. Dev.	347429.6	10180.51	1014.412
Observations	41	41	41

Source: E-views 8 Output, 2023

From Table 1 it can be seen that the consumer price index (CPI) has an average value of 76.82% and varies from a minimum of 0.51% to a maximum of 354.3% with a standard deviation of 93.2%. The manufacturing sector output (MSO) recorded an average of $22.64 billion, and varies from a minimum of $5.1billion to a maximum of $64.41 billion with a standard deviation of 15.1%. The manufacturing sector output contribution to Gross domestic product (MSOCGDP) recorded an average of 14.31% and varies from a minimum of 6.55% to a maximum of 21.1% with a standard deviation of 5.03%. The kurtosis of the variables (CPI: 4.031 and MSO: 2.920) was above benchmark of 2.0, and therefore indicated not normal distribution. The variables were random. The MSOCGDP recorded the kurtosis of 1.408676 and thus normal distributed: following a natural pattern.

Discussions, Conclusion and Recommendations:
The output data for assessing the global usefulness of the models' parametersand hypothesis testing were shown in Tables 2 and 3.

Table 2: Regression output data for testing the hypothesis one
Dependent Variable: *log*MSO

Variable	Coefficient	Std. Error	t-Statistic	Prob.
*log*CPI	0.149506	0.013350	11.19918	0.0000
C	11.15833	1.600560	6.971513	0.0000

R-squared	0.762805	Mean dependent var	22.64293
Adjusted R-squared	0.756723	S.D. dependent var	15.95346
S.E. of regression	7.868740	Akaike info criterion	7.011223
Sum squared resid	2414.766	Schwarz criterion	7.094812
Log likelihood	-141.7301	Hannan-Quinn criter.	7.041662
F-statistic	125.4217	Durbin-Watson stat	0.390367
Prob(F-statistic)	0.000000		

Source:E-views 8 Output, 2023

From Table 2 the coefficient of the slope for CPI was 0.146506. Thus, there were positive relationship between CPI and MSO. The Adjusted r-squared of 0.756723 showed that the about 76% variations in MSO can be associated to changes inCPI. The Prob (F-statistic) of 0.00000 indicated the usefulness of the model. However, the Durbin-Watson stat of 0.390367 which was below 2.0 benchmark indicated positive autocorrelation in the model's output. Thus, the model can hardly be used for policy decisions since the variations in the variables failed to examine cause and effect relationship.

Testing hypothesis one:

H_0: CPI has no significant relationship with MSO in Nigeria.

H_1: CPI has no significant relationship with MSO in Nigeria.

Decision rule: Reject $H_0$and accept H_1if p-value is less than 0.05; otherwise accept H_0 and reject H_1.

Decision: Given the p-value for CPI of 0.0000 < 0.05, we reject the null hypothesis and accept the alternate. Thus, CPI has positive significant relationship with MSO in Nigeria.

The CPI had positive significant relationship with the MSO. Higher CPI indicated lowering value of naira. Thus, the money value of the MSO will somehow increase, but definitely not in real terms as per quantity and quality of goods and services manufactured and purchased. The likely scenario in environment of rising CPI as in Nigeria case will be producing below capacity due to rising cost of production, and be crowded out by cheaper imported goods and services. The economy will likely go into recession if not sustainably stabilized through adequate moderating actions and interventions from the private and public sectors.

Table 3: Regression output data for testing the hypothesis two

Dependent Variable: *log*MSOCGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
*log*CPI	-0.032634	0.006896	-4.732067	0.0000
C	16.82610	0.826831	20.35012	0.0000

R-squared	0.364743	Mean dependent var	14.31927
Adjusted R-squared	0.348454	S.D. dependent var	5.035901
S.E. of regression	4.064898	Akaike info criterion	5.690205
Sum squared resid	644.4126	Schwarz criterion	5.773794
Log likelihood	-114.6492	Hannan-Quinn criter.	5.720644
F-statistic	22.39246	Durbin-Watson stat	0.166069

Prob(F-statistic)	0.000029

Source: E-views 8 Output, 2023

From Table 3 the coefficient of the slope for CPI was -0.032634. Thus, there were negative relationship between MSOCGDP and CPI. The Adjusted r-squared of .348454 showed that about 35% variations in MSOCGDP can be associated to changes inCPI. The Prob (F-statistic) of 0.000029 indicated the usefulness of the model. However, the Durbin-Watson stat of 0.166069 which was below 2.0 benchmark indicated positive autocorrelation in the model's output. Thus, the model was not fit for policy decisions since the variations in the variables failed to examine cause and effect relationship.

Testing hypothesis two:

H_0: CPI has no significant relationship with MSOCGDP in Nigeria.
H_1: CPI has no significant relationship with MSOCGDP in Nigeria.

Decision rule: Reject $H_0$and accept H_1if p-value is less than 0.05; otherwise accept H_0 and reject H_1.

Decision: Given the p-value for CPI of 0.0000 < 0.05, we reject the null hypothesis and accept the alternate. Thus, CPI had negative significant relationship with MSOCGDP in Nigeria.

The findings of Doguwa (2019) agreed with the result of this work: CPI had negative significant relationship with MSOCGDP. Thus, high value of food and services inflation will result in lower Manufacturing Sector Output contribution to GDP, and reverse is the case if consumer price index tend lower values. The demand for goods and services will be rise and the manufacturers will step up production to satisfy the rising effective demand. The rising prices as evidenced in recent times may not be unconnected to rising crime rates associated to corruption and dissatisfactions of citizens on performance of political leaders that has created environment of abuses of rule of law. There were also inconsistencies in government economic policies which can be described as reactive and bigotry policies. It seems obvious that certain persons would not allow sustainable economic policies and political stability to have roots in Nigeria.

This study concluded that the consumer price index in Nigeria had been aggravated by insensitivity in economic policies of the government and obvious lip service on fighting corruption in Nigeria. The manufacturing sector has started lagging in her contribution to the GDP. This must be addressed to guarantee food security and higher human development index in Nigeria.

Therefore, this study recommends that sustainability and fairness should be principal considerations in political and economic policies and strategies choices. This can be achieved if the political leaders would show evidence of participating in Nigeria project through frugal spending of national resources; charging taxes according to earning and ability to pay, and no discrimination in tax drives; permitting citizens and constituent units of the nation to engage

in developmental projects unhindered by providing basic infrastructure such as sustainable transport system, industrial parks as well as improving security of lives and properties of citizens. Government actions should also promote culture of diligence and productivity wherein values created will be rewarded against unjustifiable allocation of resources of the Federation to elite class, politicians, and passive citizens. The Central Bank of Nigeria should continue in further development finance that should promote value addition of agricultural produces and storage thereby guaranteeing food supply and price stability against vagaries of nature and global shocks that affect food production and security.

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Appendix A:

Input data: 1981 – 2021 (Nigeria)

YEAR	**MSO $ Billion**	**CPI (₦)**	**MSOCGDP (%)**
1981	33.33	0.51	20.26
1982	29.03	0.55	20.33
1983	20.49	0.76	21.10
1984	13.03	0.94	17.74
1985	15.53	0.95	21.05
1986	11.51	1.07	21.01
1987	9.89	1.18	18.78
1988	10.44	1.64	21.02
1989	8.08	2.37	18.35
1990	9.91	2.46	17.78
1991	9.58	3.02	19.49
1992	8.44	4.49	17.65
1993	5.10	7.25	18.38
1994	7.08	12.81	20.93
1995	8.81	19.42	19.99
1996	9.76	22.20	19.10
1997	10.46	24.47	19.20
1998	9.53	27.39	17.45
1999	9.65	27.45	16.26
2000	9.68	31.43	13.93
2001	10.14	36.62	13.93
2002	11.23	41.07	11.81
2003	12.63	50.85	12.06

2004	14.75	55.94	10.86
2005	17.67	62.41	10.06
2006	21.11	67.76	8.85
2007	23.38	72.20	8.40
2008	27.73	83.07	8.17
2009	23.12	93.83	7.84
2010	24.05	104.84	6.55
2011	29.72	115.68	7.17
2012	35.84	129.54	7.72
2013	46.44	139.81	8.93
2014	55.33	150.93	9.64
2015	46.44	165.39	9.43
2016	35.12	196.10	8.68
2017	32.85	226.20	8.74
2018	40.69	240.14	9.65
2019	51.63	267.51	11.52
2020	54.75	302.95	12.67
2021	64.41	354.30	14.61

Source: CBN Statistical Bulletin (2021) and World Bank online Financial Indicators report

Keys: *CPI: Consumer Price index (in naira); MSO: Manufacturing Sector Output (in $'Billion); MSOCGDP: Manufacturing Sector Output contribution to Gross Domestic Product (in percentage).*