

Nigeria's economic recovery

Defining the path for economic growth



Nigeria's economy has turned a corner

The oil price shock, which started in mid-2014, severely affected the Nigerian economy. In 2015, the economy slowed sharply, as annual real GDP growth declined to 2.7%y/y from 6.2%y/y in 2014. By 2016, the economy recorded its first recession since 1991, recording a growth of -1.5% y/y, as oil production shortages exacerbated the decline in the oil price. Notably, the underperformance in the oil sector spilled over to the non-oil sector through the exchange rate channel, with the non-oil sector contracting 0.2% y/y to record its worst performance since 1984.

By Q2'17, the Nigerian economy exited its recession, recording a positive growth rate of 0.5% y/y. The recovery was in part due to a sharp recovery in the oil sector, driven by an improvement in oil prices and production volumes. In addition, the non-oil sector recorded a positive growth for the second consecutive quarter, spurred by ongoing recovery in the manufacturing sector due to improved Foreign Exchange (FX) liquidity. Besides the improvement in real GDP, the performance across several other macro-indicators suggest that the economy is on track for a broad-based recovery as discussed in the next page.



Trade surplus maintained for 3 consecutive quarters

Nigeria has recorded a trade surplus for three successive quarters since Q4'16, owing to a sharp recovery in exports. Although the trade surplus moderated to USD1.7 billion in Q2'17 (Q1'17: USD2.4 billion), it still represents a significant improvement in comparison to the deficit of USD1.8 billion in Q2'16. In Q2'17, exports increased 2.2% q/q to USD10.2 billion, the highest level in six quarters, supported by a rebound in crude oil production. Imports on the other hand accelerated faster at 13.3% q/q in Q2'17 to USD8.5 billion, a reflection of improved demand due to the increase in foreign exchange availability.

Purchasing Managers' Index (PMI) above threshold for six consecutive months

The Purchasing Managers' Indices for both the manufacturing and non-manufacturing sectors have risen persistently above the 50 points threshold since April 2017. Overall, the indices attained a peak of 55.3 points for manufacturing in September 2017, and a peak of 55.3 points for non-manufacturing in October 2017, driven by improvements in business activities, production and employment across most firms. The index had consistently stayed below the 50 points threshold between January 2016 and March 2017, mirroring the contraction in economic activities during this period.

Headline inflation at a 16-month low at 15.9% y/y in September

Headline inflation moderated for the eight consecutive month, reaching a 16-month low of 15.9%y/y in September 2017, from a peak of 18.7%y/y in January 2017. This has been driven largely by the softening impact of imported inflation due to an improvement in FX liquidity. We note that the moderation in headline inflation has been offset by rising food inflation, which is at a 7-year high of 20.3%y/y, due to rising domestic food prices.

Foreign Reserves up to 34-month high

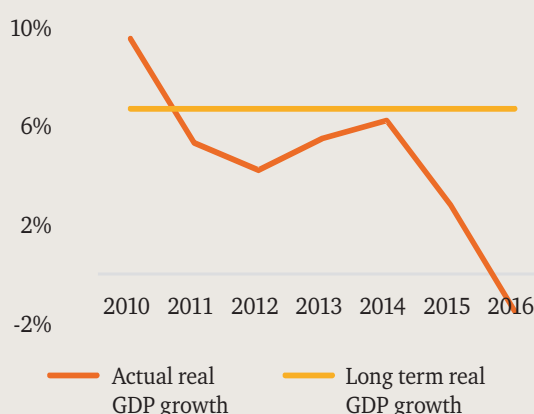
Between March and October 2017, the gap between the official and parallel market exchange rates narrowed significantly from NGN123/USD to NGN57/USD. The introduction of the Investors and Exporters window (I&E) in April 2017 improved price discovery in the interbank market, resulting in increased market participation and FX liquidity. In addition, increased foreign investments and proceeds from government's external borrowings have resulted in net inflows to the foreign reserves, which peaked at a 34-month high of USD33.8 billion on October 30 2017.

Nigeria's long-term growth performance

We estimate Nigeria's long term economic growth using a regression analysis of real GDP against time, with annual GDP data between 2000 and 2016. The regression output estimates long term economic growth at 6.7% per annum. Furthermore, we find that Nigeria's economic output has fallen significantly below its potential (see figure 2), since 2015, owing to the collapse in oil prices which started in mid-2014.

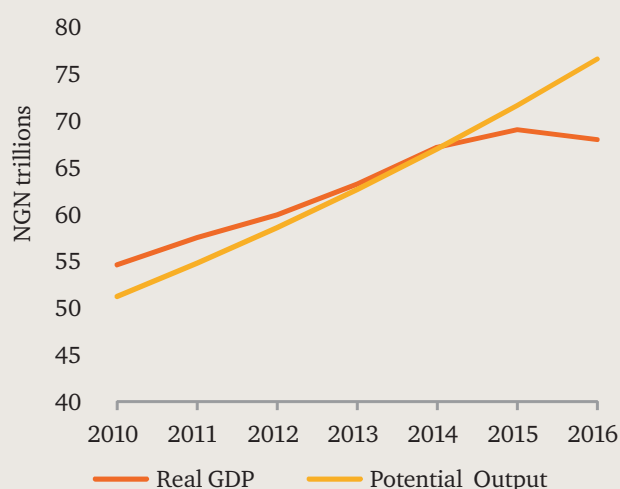
In addition to estimating Nigeria's long-term growth performance, we further assess the fundamental determinants of economic growth¹. Using time series data from 1996 to 2012, we use a specialized regression method (Autoregressive distributed lag model) to evaluate the impact of private consumption growth, investment share in GDP, maximum lending rate, oil production, oil price, total trade as a share of GDP, government spending and economic freedom on economic growth. The regression output finds economic freedom, consumption growth and investment share in GDP statistically significant as the most fundamental drivers of economic growth. Specifically, an increase in the economic freedom² index by 1 point could lead to a 1.7 percentage points increase in Nigeria's economic growth. This underscores the role of economic policies as a major catalyst for economic development. Similarly, a one percentage point increase in investment share in GDP and consumption growth were found to be associated with 0.2 percentage points and 0.7 percentage points increase in economic growth respectively.

Figure 1: Actual vs. Long term real GDP growth



Source: NBS, PwC estimates

Figure 2: Potential Output vs. Actual Output



Source: NBS, PwC estimates

1. Kazeem B. Ajide (2014): "Determinants of Economic Growth in Nigeria" CBN Journal of Applied Statistics Vol. 5 No.2

1. Charles Agwu (2015): "Factors that Contribute to Economic Growth in Nigeria" International Journal of Management and Commerce Innovations, Vol. 2, Issue 2, pp:(487-495)

1. Ghazanchyan M., Stotsky G. Janet, and Zhang Qianqian (2015): "A New Look at the Determinants of Growth in Asian Countries" IMF Working Paper, series WP/15/195

2. Economic freedom measures the extent to which government policies and institutions enhance the ease of doing business, security and fair competition in a country. To capture the trend in economic freedom in our model, we used the "Economic Freedom of the World" index which was developed by the Frazer Institute. This index measures the degree of economic freedom, on a scale of 1 to 10, in the following broad areas: legal structure and security of property rights; regulation of credit, labor and business; freedom of trade; size of government; and access to sound money.

Nigeria's economic growth prospects: The three scenarios

We have developed three scenarios that show Nigeria's potential economic performance over the next 5 years. In these scenarios, we examine the impact of political shocks, and the implementation of structural reforms and economic diversification on key economic indicators in Nigeria. In our analysis, we assume that oil continues to be the main driver of fiscal and export revenues over the forecast period. As such, the extent to which the Nigerian economy moves towards its near-term development aspirations is dependent upon the success of its import substitution policies.

Our approach

1. Literature review

We conducted a review of economic literature that examines:

- The impact of political shocks on economic growth in developing countries, in particular, Nigeria
- Business cycles to capture the pace of recovery from an oil-induced recession

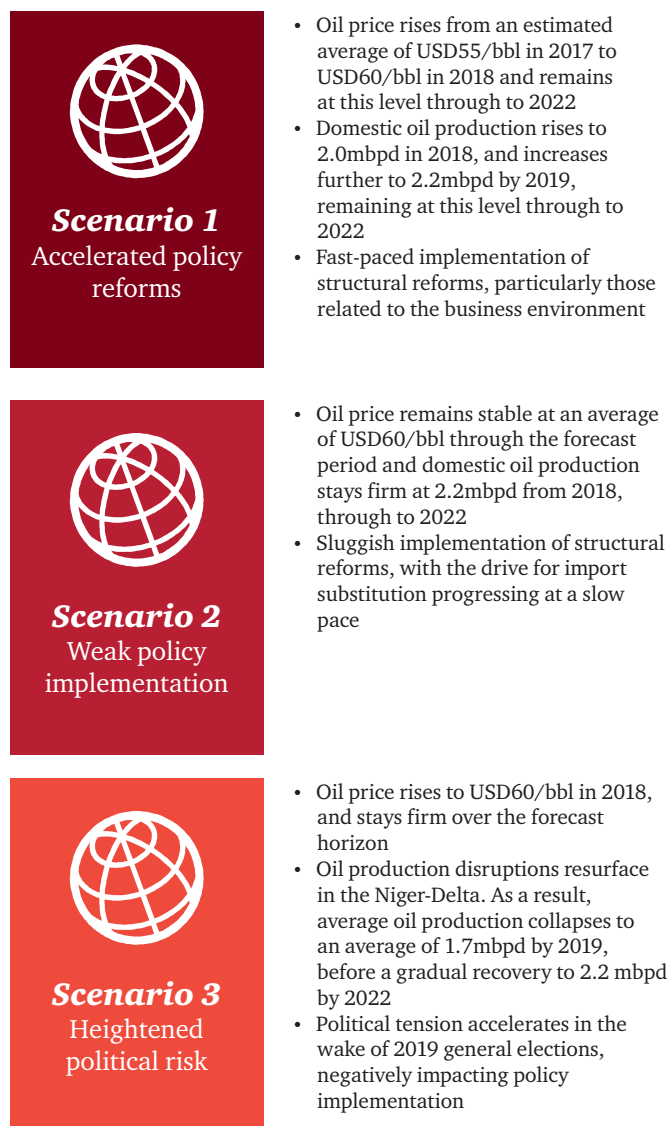
From these studies, we obtained a number of coefficients which serve as inputs into the structural model developed for the Nigerian economy.

2. Quantitative modelling

We used a range of analytical techniques, including:

- Econometric analysis of the relationship between select macroeconomic variables and economic growth
- Simulation modelling using a structural macroeconomic model of Nigeria's economy

Figure 3: PwC scenarios of Nigeria's economy



Summary of our findings

Real GDP Growth

In scenario 1, real GDP growth peaks at 7.0% in 2022 and remains in line with trend, reflecting the implementation of structural reforms, and successful traction in the execution of import substitution policies. The resultant improvement in the macroeconomic environment leads to increased investment and per capita GDP. However, in scenario 2, the implementation of key reforms evolves at a slow pace and economic growth averages 3.3% over the forecast period, reaching 5.0% in 2022. A mix of political and security shocks in scenario 3 bring about a significant decline in revenues result in no growth (0.0%) in 2019. Subsequently, growth recovers to 4.3% by 2022.

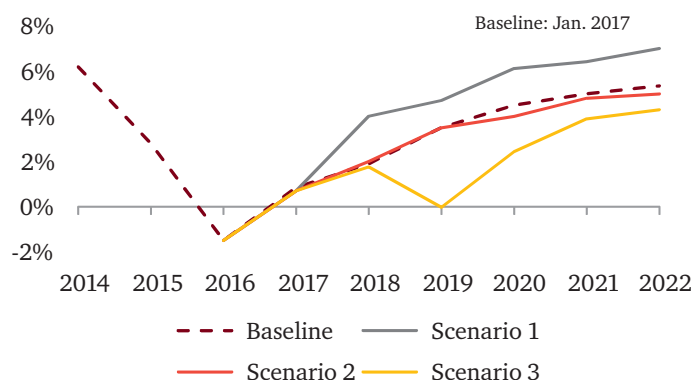
Investment to GDP

Investor confidence improves and investment to GDP peaks at 26.0% in 2022 in scenario 1. This is resulting from the successful implementation of reforms which leads to a broad improvement in the business environment. In particular, the ease of doing business records a notable improvement and Nigeria's economic freedom reaches new highs. In scenario 2, the sluggish pace of reforms in the foreign exchange market continues to create some uncertainty for foreign investors, leading to only a marginal increase in investment to GDP to 17.0%. However, this increase is significantly above the average of 15.1% recorded in the five years leading to the recession. In scenario 3, investment to GDP dips to 14.0% as insecurity and rising political tensions come to the fore in the wake of the 2019 elections. Subsequently, the government's intervention results in stability in the macro-environment and investment to GDP increases to 15.0% for the remainder of the forecast period.

Inflation

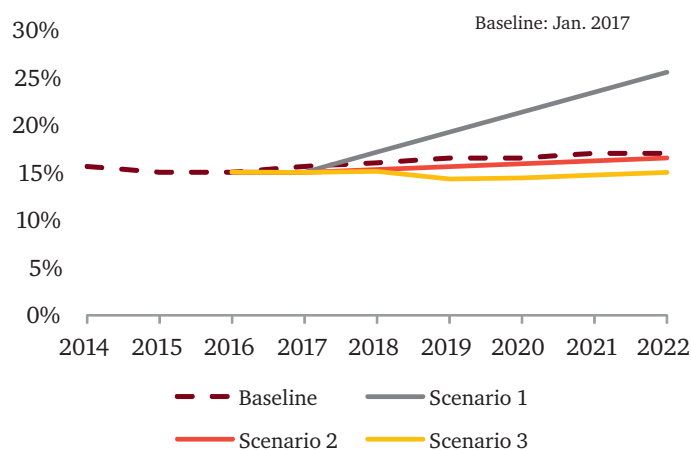
In scenario 1, inflation moderates to 6.2% y/y in 2022, supported by increased domestic food production, a significant reduction in food and fuel imports and a stable foreign exchange regime. In scenario 2, inflation declines slowly, reaching 9.0% y/y in 2022, as food import substitution progresses at a sluggish pace. In scenario 3, inflation remains largely elevated, staying at double digits through the forecast period. As a result, interest rates remain at a high level over this period, as the Central Bank tightens the policy rate to reduce inflationary pressures.

Figure 4: Real GDP Growth



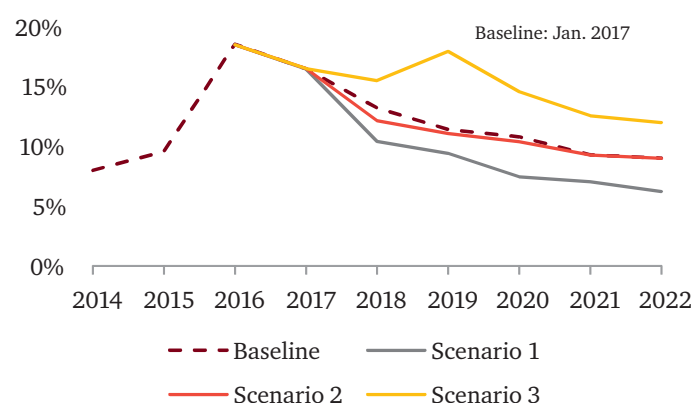
Source: NBS, PwC forecasts

Figure 5: Investment to GDP



Source: NBS, PwC forecasts

Figure 6: Inflation



Source: NBS, PwC forecasts

Scenario 1: Accelerated policy reforms

Oil price increases from an estimated average of USD55/bbl in 2017 to USD60/bbl in 2018 and remains at this level to 2022. Between 2018 and 2019, the supply of oil moderates due to the OPEC production cut agreements while the demand for oil increases mildly in line with the global growth recovery. On the other hand, between 2020 and 2022, the demand for oil weakens as advanced economies gradually move to greener sources of energy, and investment in oil production slows. Towards the end of the forecast period and beyond, the global oil market rebalances.

Domestic oil production rises to 2.0mbpd in 2018, and increases further to 2.2mbpd by 2019, remaining at this level through to 2022. This is expected to be driven by minimal production disruptions in the Niger-Delta region, as the mediation efforts of the government pays off. The government is committed to the implementation of structural reforms, with policies aimed at improving the business environment.

Growth accelerates back to trend

Economic growth increases steadily from 0.7% in 2017, maintaining an average of 4.4% between 2018 and 2019, before rising to trend at 7.0% in 2022.

There is stability in oil exports and an improvement in non-oil revenues as a result of the government's tax reforms. The fiscal deficit narrows and the pace of borrowing slows, providing head room for significant rate cuts. The economy records a consistent and growing current account surplus, driven by a significant reduction in imports between 2019 and 2020 as the government's import substitution policies yields results. However, between 2021 and 2022, imports pick up as a result of strong economic growth and increasing per capita income.

Final consumption expenditure of households grows steadily, as employment growth strengthens and real incomes increase, owing to price stability. Inflation

declines from 16.5% y/y in 2017 to 6.2% y/y in 2022, due to exchange rate stability and increased food production arising from the success of government's import substitution policies. Nominal GDP per capita rises to a peak of USD3,301.9 in 2022, which continues to spur consumer spending.

Investor confidence supports high investment

The share of investment to GDP increases from 16.0% in 2017 to 26.0% in 2022, in line with our estimates of the investment level required to drive growth to trend². Foreign investments return to pre-recession highs as lower constraints in the business environment and a more predictable operating landscape results in an improvement in Nigeria's economic freedom score and ease of doing business ranking. In addition, there is improved macroeconomic stability and consistency in policy making which improves investor confidence. Increased credit to the private sector provides a boost to investments, riding on lower macro risks, higher government capital expenditure implementation, and implementation of the Economic Recovery and Growth Plan (ERGP).

Figure 7: Real GDP Growth and Investment to GDP

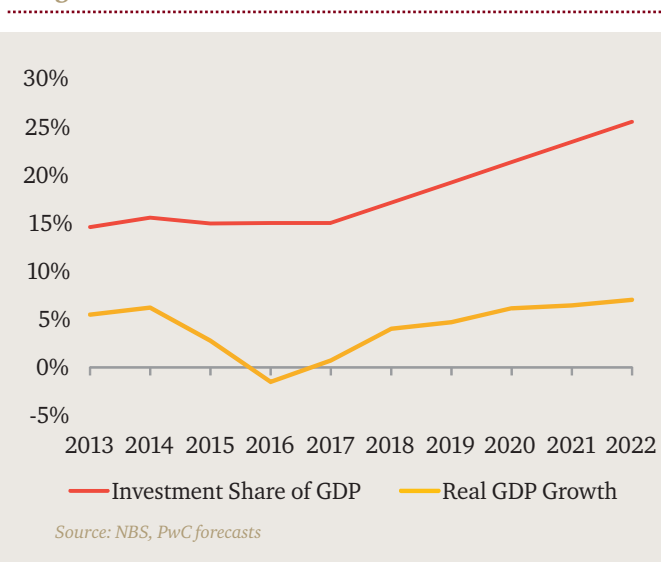


Table 1. Scenario 1 projections for select economic variables.

	2017	2018	2019	2020	2021	2022
Nominal GDP (USD billions)	394.9	457.6	524.3	506.6	629.6	715.7
Nominal GDP per capita (USD)	2,069.9	2,337.3	2,609.6	2,457.3	2,978.2	3,301.9
Real GDP growth	0.7%	4.0%	4.7%	6.1%	6.4%	7.0%
Inflation rate (Year average)	16.5%	10.4%	9.4%	7.5%	7.0%	6.2%

Source: PwC forecasts

2. Boosting Investments: Nigeria's path to growth, PwC Nigeria (2017)

Scenario 2: Weak policy implementation

Oil price remains stable at an average of USD60/bbl through the forecast period and domestic oil production remains firm at 2.2mbpd from 2018, through to 2022. The implementation of structural reforms to improve the business environment, the drive for non-oil revenues and import substitution progress at a sluggish pace.

Growth advances moderately

Economic growth increases marginally to 2.0% in 2018, and further to an average of 4.3% between 2019 and 2022. Oil export earnings increase, supported by higher oil production and prices. However, initiatives to boost non-oil revenue records only marginal success. As the size of the budget continues to increase, the fiscal deficit remains large, negatively impacting capital expenditure. With slow progress in the substitution of food imports, Nigeria's current account surplus narrows.

Final consumption expenditure of households grows at an average of 3.7% between 2017 and 2022. This is due to a modest recovery in purchasing power, owing to improving employment conditions and increased real income.

Investment slightly above recession levels

The share of investment to GDP rises from 15.0% in 2017 to an average of 16.0% between 2018 and 2022, below the 26.0% required for the economy to return to trend. The business environment remains challenging due to the slow pace of reforms, and the lack of a market driven exchange rate policy puts a lid on investment. As a result,

capital inflows remain below pre-recession levels. The combination of these factors, in addition to a narrowing current account surplus, results in uncertainty and volatility in the foreign exchange market. Although monetary policy is accommodative between 2020 and 2022, domestic investment provides no significant reprieve as banks are cautious in lending to the real sector.

Figure 8: Consumption Growth

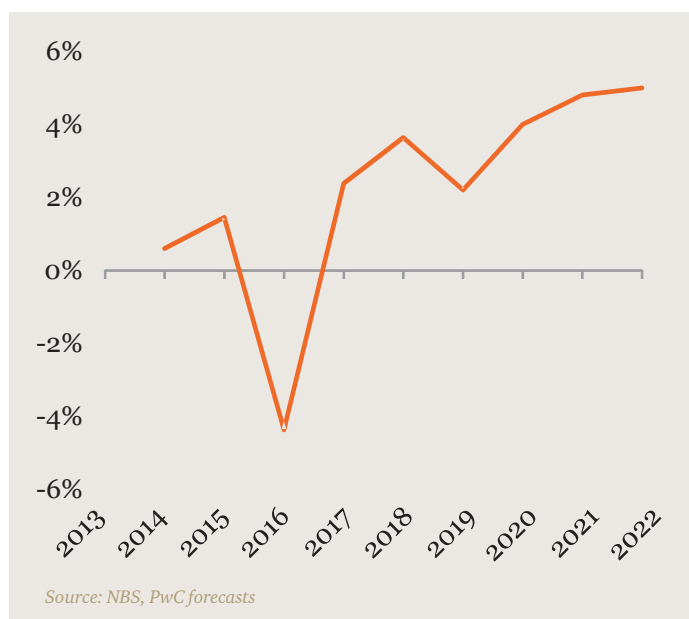


Table 2. Scenario 2 projections for select economic variables.

	2017	2018	2019	2020	2021	2022
Nominal GDP (USD billions)	395.0	456.0	524.2	496.1	525.6	601.6
Nominal GDP per capita (USD)	2,070.6	2,329.0	2,609.4	2,406.5	2,486.3	2,775.3
Real GDP growth	0.7%	2.0%	3.5%	4.0%	4.8%	5.0%
Inflation rate (Year average)	16.5%	12.2%	11.1%	10.4%	9.3%	9.0%

Source: PwC forecasts

Scenario 3: Heightened political risk environment

Oil price remains stable at an average of USD60/bbl through the forecast period. However, there is a reduction in oil production to an average of 1.7mbpd by 2019, before a gradual recovery to 2.2 mbpd by 2022, as security challenges in the Niger-Delta region disrupt oil production activities. Political tension accelerates in the wake of the general elections in 2019, causing insecurity in the crisis prone region of the North-East, and negatively impacting policy implementation.

Fiscal sustainability comes under threat

Government revenues weaken, as oil exports fall due to lower oil production. The non-oil revenue drive of the government suffers a setback due to the deteriorating conditions in the broader economy which impacts the non-oil sector. Consequently, the government records a significant increase in its fiscal deficit, and ramps up borrowing. However, this comes at a high cost in the domestic and external debt market, due to rising risk premium as credit rating agencies downgrade Nigeria's sovereign bonds in 2019.

Sub-nationals continue to struggle to meet salary obligations, and capital expenditure remains consistently weak. The need to increase Internally Generated Revenue (IGR) continues to gain prominence, with minimal success among states.

Growth deteriorates considerably

Economic growth deteriorates considerably from 1.8% in 2018 to 0.0% in 2019, largely due to increased risks in the political environment. Political tensions in the Niger-Delta negatively impact oil production, while security concerns in the Northern Nigeria affect food output. However, in the aftermath of the 2019 elections, the government makes quick interventions to pacify the various interest groups. As a result, growth picks up to 2.3% in 2020, before rising steadily to 4.0% by 2022.

Final consumption expenditure of households declines by -1.3% in 2019, before recovering to an average of 4.0% between 2020 and 2022. This is because inflation increases to 17.8% y/y in 2019, due to supply shocks such as declining food production and a weaker exchange rate. Similarly, Nigeria's nominal GDP per capita declines 2.8% to USD2,288.3 in 2019 (2018F:USD2,350.9).

Investment falls to recession levels

The share of investment to GDP remains flat at an average of 14% from 2019 through to 2022, due to risks in the political and economic environment. We assume that Nigeria's economic freedom will weaken to 5.2 points in 2019 (2016: 5.9 points), similar to the levels recorded at the beginning of the democratic dispensation between 2000 and 2001. As a result, capital outflows increase, and foreign direct investment weakens to about USD4.4 billion, around levels recorded during the 2016 recession.

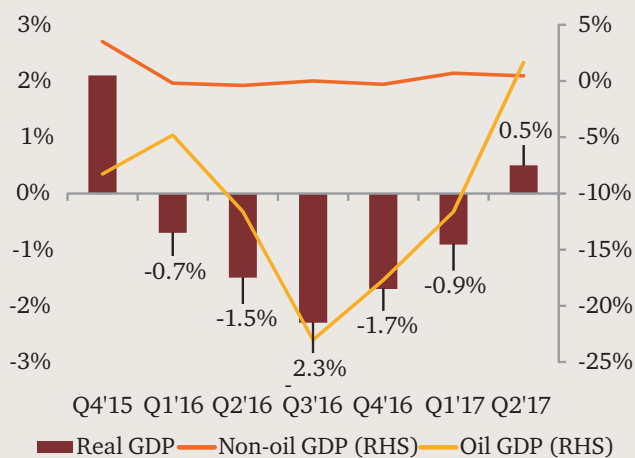
Table 3. Scenario 3 projections for select economic variables.

	2017	2018	2019	2020	2021	2022
Real GDP growth	0.7%	1.8%	0.0%	2.4%	3.9%	4.3%
Nominal GDP (USD billions)	395.0	464.3	463.7	515.6	545.5	594.6
Per capita GDP (USD)	2,052.8	2,350.9	2,288.3	2,479.3	2,558.1	2,719.6
Inflation rate (Year average)	16.5%	15.5%	17.9%	14.6%	12.6%	12.0%

Source: PwC forecasts

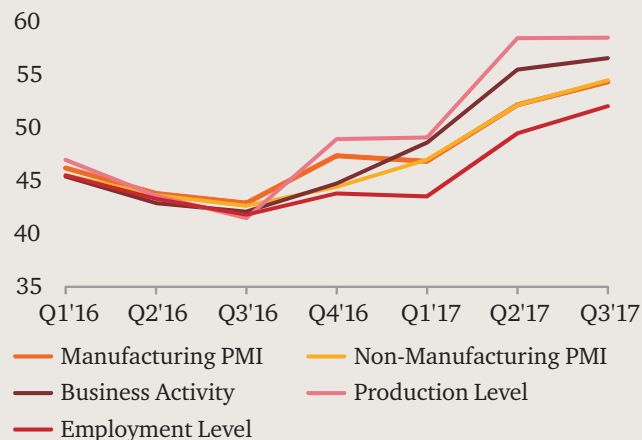
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Figure 9: GDP growth rate



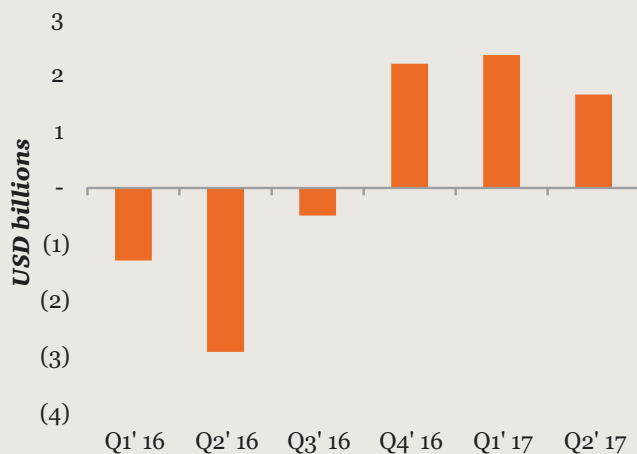
Source: NBS, PwC analysis

Figure 10: Purchasing Managers' Index (Point)



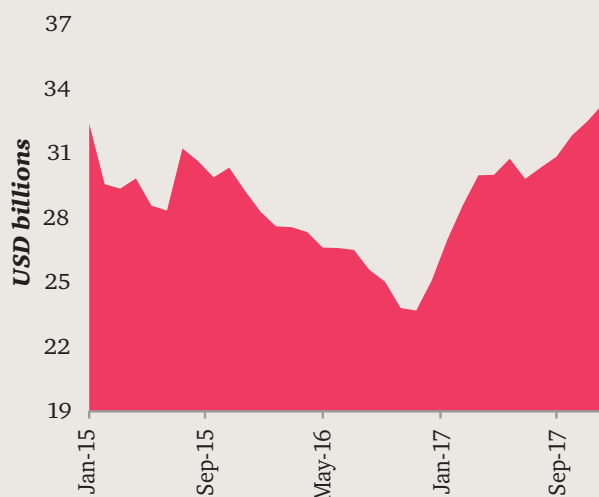
Source: CBN, PwC analysis

Figure 11: Trade balance



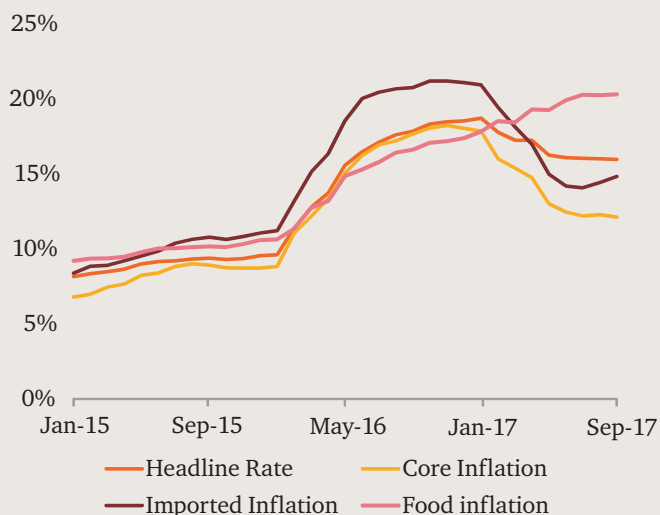
Source: NBS, PwC analysis

Figure 12: Foreign exchange reserves



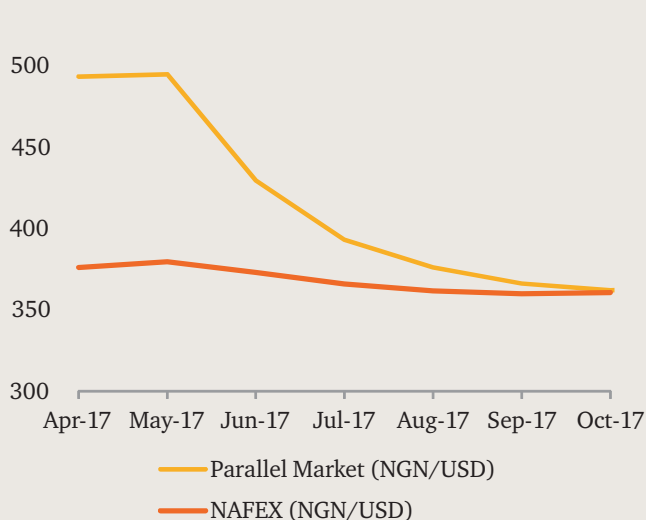
Source: CBN, PwC analysis

Figure 13: Inflation rates (2015-2017)



Source: NBS, PwC analysis

Figure 14: Exchange rates



Source: FMDQ, Aboki FX, PwC analysis

Abbreviations

ARDL	Autoregressive Distributed Lag
BBL	Crude Barrels
CBN	Central Bank of Nigeria
ERGP	Economic Recovery and Growth Plan (2017-2020)
FX	Foreign Exchange
GDP	Gross Domestic Product
IGR	Internally Generated Revenue
I&E	Investors and Exporters
MBPD	Million Barrels Per Day
NAFEX	The Nigerian Autonomous Foreign Exchange Rate Fixing
NBS	National Bureau of Statistics
OPEC	Organisation of the Petroleum Exporting Countries
USD	United States Dollar

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