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# Nigeria: Navigating a slippery slope

A confluence of supply and demand factors has forced oil prices sharply lower. Rapid production growth outside of traditional oil producing markets, a stronger US dollar, reduced speculative positioning and OPEC's apparent loss of pricing power have severely altered the outlook for oil (Table 1).

Table 1: OPEC's medium-term liquid supply outlook

| m bpd | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|
| US and Canada | 15.2 | 16.5 | 17.7 | 18.3 | 18.8 | 19.1 | 19.4 |
| of which: tight crude | 2.8 | 3.4 | 3.8 | 4.1 | 4.2 | 4.3 | 4.4 |
| OECD | 22.1 | 23.4 | 24.5 | 25.1 | 25.5 | 25.8 | 26.0 |
| Latin America | 4.8 | 4.9 | 5.1 | 5.6 | 5.9 | 6.2 | 6.6 |
| Developing countries, excl. OPEC | 16.4 | 16.5 | 16.7 | 17.4 | 17.8 | 18.1 | 18.4 |
| Eurasia | 13.6 | 13.6 | 13.5 | 13.5 | 13.7 | 13.6 | 13.7 |
| Non-OPEC | 54.2 | 55.7 | 57.1 | 58.4 | 59.4 | 60.0 | 60.6 |
| OPEC supply (incl. NGLs) | 35.8 | 35.8 | 35.5 | 35.0 | 34.9 | 35.3 | 35.6 |
| *OPEC crude* | 30.2 | 30.0 | 29.5 | 28.5 | 28.2 | 28.5 | 28.7 |
| Stock change | 0.0 | 0.4 | 0.3 | 0.2 | 0.3 | 0.2 | 0.2 |
| **World supply** | **90.0** | **91.5** | **92.6** | **93.4** | **94.3** | **95.2** | **96.2** |

Source: OPEC 2014 World Oil Outlook , RMB Global Markets
Data as at November 2014

The obvious question is: **in light of these factors, how resilient is sub-Saharan Africa's largest oil-exporting economy, Nigeria, to a precipitous drop in oil prices?**

Our response is informed by the likely macroeconomic and policy reactions to the flagging oil price.

## The potential for a fiscal fallout

Nigeria is grossly dependent on oil revenues to fund state expenditures. Proceeds accrued from production-sharing agreements with international oil concerns account for roughly 66% of Nigeria's retained earnings. The residual is comprised of corporate tax and VAT, independent revenues and customs duties.

The government's forecasted oil revenues are premised on specific prices and production levels (Table 2). If market prices and domestic output fall short of these, then Nigeria's fiscal position is at risk of being eroded.

Table 2: Budget assumptions vs. annual average levels

| | Oil production (m bpd) | | | Brent crude oil price (US$/bbl) | | |
|---|---|---|---|---|---|---|
| | Annual average | Budget | Difference | Annual average | Budget | Difference |
| 2010 | 1.9 | 2.1 | -0.2 | 80.2 | 57.0 | 23.2 |
| 2011 | 1.9 | 2.3 | -0.4 | 113.4 | 65.0 | 48.4 |
| 2012 | 1.9 | 2.5 | -0.6 | 112.0 | 72.0 | 40.0 |
| 2013 | 1.7 | 2.5 | -0.8 | 109.4 | 79.0 | 30.4 |
| 2014 c. | 1.7 | 2.4 | -0.7 | 101.0 | 77.5 | 23.5 |

Source: EIA, RMB Global Markets
Data as at November 2014

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Several metrics can be used to assess the sensitivity of Nigeria's budget to the oil price

There are several metrics that can be used to assess the sensitivity of Nigeria's budget to fluctuations in the oil price and production levels.

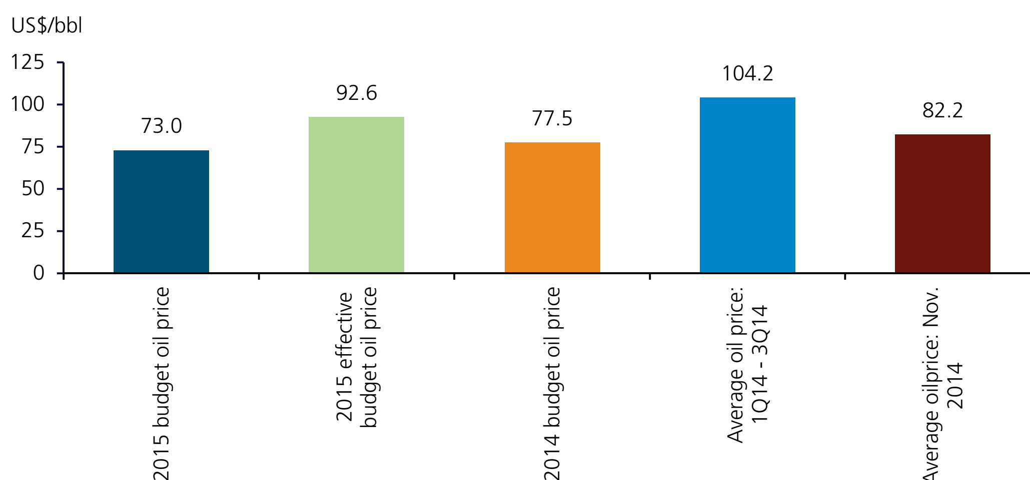
A **fiscal breakeven price**, which is the average oil price needed for an oil exporting nation to balance its budget in a particular year, is commonly used to gauge an economy's fiscal vulnerability to changes in the oil price. Although the breakeven price provides a single measure of fiscal flexibility, it does not account for the growth in non-oil revenues, changes in oil production, nor a government's ability to curb expenditure in the event of an oil price shock.

An alternative measure is the **effective budget price,** which is the average price required to attain the government's forecasted revenues for a particular year. This price is calculated using current production levels, the budgeted oil price and the expected average exchange rate for a specific period of time.

Effective budget price is substantially higher than the proposed budget price and current market prices

Our assessment of Nigeria's fiscal strength is based on the state's assumptions for the 2015 fiscal year, yielding an effective budget price of US$92.60/bbl. This is substantially higher than the government's proposed budget price of US$73/bbl and more importantly current market prices (Figure 1), diminishing the prospect of achieving the state's forecasted revenue. Non-oil earnings are unlikely to account for the shortfall given reduced customs duties and challenges in collecting inland revenues owing to unrelenting security disruptions. Against this backdrop, the government would draw down on the Excess Crude Account (ECA) or undertake additional borrowing to fund the total expenditure, which will hasten the growth in gross public debt and aggravate the level of debt service costs.

Figure 1: Oil prices influencing government revenues[1]




Note:
1 Revenues calculated using 2014 averages for oil production and the exchange rate
Source: IMF, Federal Ministry of Finance, Bloomberg, RMB Global Markets
Data as at November 2014

A possible solution would be to operate at maximum capacity. However, production has consistently underperformed the state's expectations since 2012 due to theft, vandalism and irregularities in the management of oil fields. The ability to limit a widening of the budget deficit depends on expenditure restraint. But, Nigeria's expenditure framework for 2015 is extremely optimistic as the electoral cycle brings with it the possibility of higher spending. Federal government outlays increased nearly 50% y/y before the last election in 2011, enhanced by supplementary budgets. In light of the waning oil price, we anticipate a budget deficit of 2.5% of GDP in FY2015/16 and 1.9% in the following fiscal year.

## The ability to draw down on fiscal savings

Nigeria's expenditure framework for 2015 is extremely optimistic

In contrast to its OPEC counterparts, Nigeria's fiscal savings are limited. Its ECA (which provides a cushion between actual and budgeted oil income) is valued at roughly US$4bn. A paltry sum compared to the US$22bn that helped officials manage the fallout from the Global Financial Crisis in 2008. The Finance Ministry contends that while it does not intend to raid the ECA, it will draw down on the balance if the oil price continues its descent, which will provide two additional months of support at the margin. However, the federal government will have to fend off claims by state governors, who are also entitled to a portion of the ECA on a monthly basis. The projected long-term decline in oil revenue therefore poses a broader socioeconomic risk as state and local governments might compromise on service delivery in key areas such as healthcare and education to accommodate lower expenditure.

SWF stands at the centre of an ongoing constitutional tussle

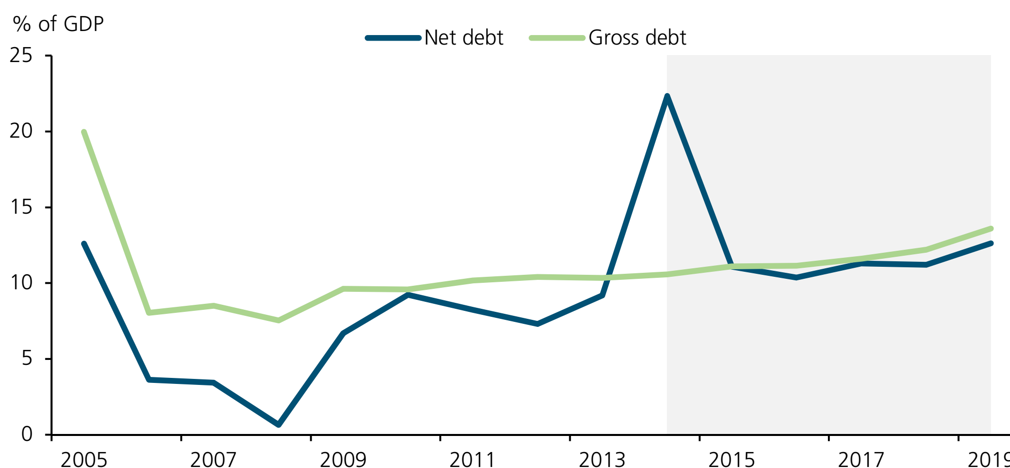
The Sovereign Wealth Fund could be used as a stopgap measure given that 20% of the fund is dedicated to capital preservation. At US$1.55bn, this equates to a further US$310m of support against short-term macroeconomic instability. However, Nigeria's sovereign funds stand at the centre of an ongoing constitutional tussle over how the nation's oil earnings should be spent.

## Debt drag

According to the IMF's most recent forecasts, Nigeria's collective debt profile (measured by the growth in gross debt to GDP) is relatively flat over the next five years, rising by a meagre 2.5%. Its forecasted economic growth rate, coupled with fairly sticky levels of inflation, should keep nominal GDP growth rates elevated around 14.7%, diminishing the proportion of its total debt-to-GDP (*SSA insight: Delving into Africa's debt metrics*, 22 October 2014).

However, its nominal debt is anticipated to rise by more than 20% over the next five years regardless of the forecasted increase in its nominal GDP rate, pointing to greater debt accumulation. A slump in the oil price will exacerbate Nigeria's debt burden (Figure 2), increasing its perceived credit risk.

Figure 2: Debt to GDP




Source: World Bank, Bloomberg, RMB Global Markets
Data as at November 2014

## Current account conundrum

Slump in the oil price will exacerbate Nigeria's debt burden

Nigerian authorities might be forced to contend with dual deficits given that a persistent decline in the oil price has the potential to drive the current account balance, forecasted at 3.7% of GDP in 2014, into deficit.

Oil accounts for 95% of Nigeria's exports rendering the current account balance vulnerable to diminishing international prices. At the other end of the spectrum, oil imports constitute 35% of total imports. Demand is fairly price inelastic due to a dearth of locally refined products.

By adopting the IMF's 2015 forecasts for the services, income and transfer accounts, we find that an average oil price between US$90/bbl and US$95/bbl is necessary to balance Nigeria's current account (Table 3). This implies a US$4bn reduction in total exports and a US$0.94bn in imports for every US$5bn decline in oil prices.

Oil accounts for 95% of Nigeria's exports

Table 3: Current account balances (% of GDP) based on changes to price and production

| | Annual oil production (m bpd) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| US$/bbl | 1.95 | 2.00 | 2.05 | 2.10 | 2.15 | 2.20 | 2.25 | 2.30 | 2.35 | 2.40 |
| 70 | -2.0 | -1.8 | -1.6 | -1.4 | -1.2 | -1.0 | -0.8 | -0.6 | -0.4 | -0.2 |
| 75 | -3.5 | -2.8 | -2.6 | -2.4 | -2.2 | -2.0 | -1.8 | -1.6 | -1.4 | -1.2 |
| 80 | -3.1 | -2.4 | -2.2 | -2.0 | -1.7 | -1.5 | -1.3 | -1.1 | -0.9 | -0.6 |
| 85 | -2.7 | -2.0 | -1.8 | -1.5 | -1.3 | -1.1 | -0.8 | -0.6 | -0.3 | -0.1 |
| **90** | -2.3 | -1.6 | -1.3 | -1.1 | -0.8 | -0.6 | **-0.3** | -0.1 | 0.2 | 0.4 |
| **95** | -1.9 | -1.2 | -0.9 | -0.6 | -0.4 | -0.1 | **0.1** | 0.4 | 0.7 | 0.9 |
| 100 | -1.5 | -0.8 | -0.5 | -0.2 | 0.1 | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 |

Source: IMF, Bloomberg, RMB Global Markets
Data as at November 2014

Poor levels of oil production present a clear risk to the current account

The price is merely one component of the oil equation. Poor levels of production present a clear risk to the current account, especially since the outlook for the oil industry remains grim. Uncertainty over the ominous Petroleum Industry Bill continues to undermine investment in exploration while the enduring struggle for resource control in the Niger Delta and persistent disruptions to midstream activities dampen investor sentiment. A lack of growth in export volumes means that import growth will need to be curtailed either through protectionist measures, which is undesirable in an open economy, or a weaker currency. Since it is unlikely that fiscal policy will be significantly restrained, monetary policy may have to be more of a disciplining factor to assist rebalancing.

## Potential monetary policy response

Asymmetric effect of oil price shocks on output and prices will shape CBN's policy response

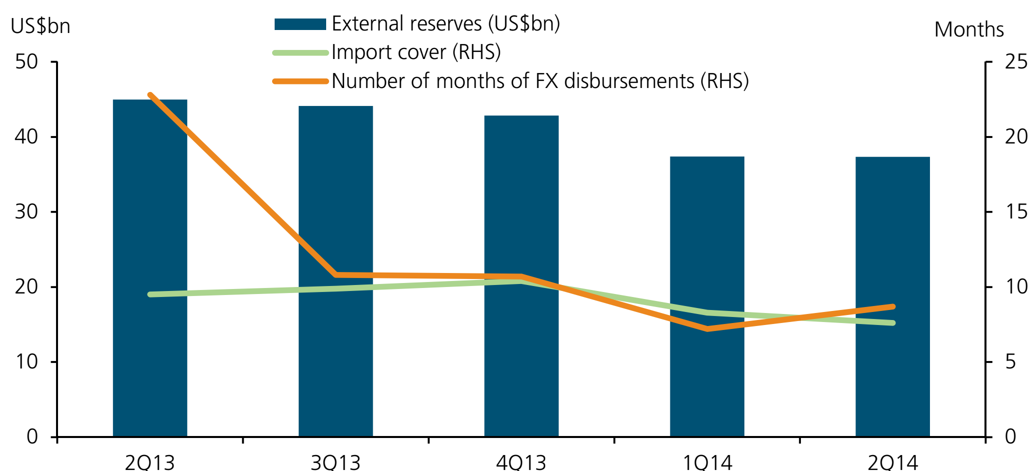
The asymmetric effect of oil price shocks on output and prices will shape the CBN's monetary policy response. By this we mean that a dip in the oil price has a greater bearing on Nigeria's inflation and GDP profiles, warranting an immediate response.

Notwithstanding the positive effect of the lower oil price on fuel costs, a weaker naira will have a more pronounced impact on headline inflation due to Nigeria's reliance on imports of raw materials, refined products and consumer goods. While the 12-month change in core inflation remains sticky at 7.1%, it is at risk of becoming unhinged owing to second-round effects, necessitating tighter monetary policy.

Policy of leaning against the wind has failed

The CBN's policy of leaning against the wind by assuring markets of its reserve capabilities has failed. In fact, its efforts have created more uncertainty as evidenced by a string of circulars released in November that provoked a surge in demand as importers brought forward their commitments. The first week of November was a prime example of the interbank market's inability to absorb the rising level of demand. The naira spiked to 172.00 intraday, necessitating swift central bank intervention. The unit eventually clawed its way back to 170.00 following the sale of an undisclosed amount of US dollars by the CBN. However, the central bank is limited in its ability to directly influence the spot rate due to its dwindling international reserve position, which is more than 20% lower than in 4Q08 when the oil price slumped to US$46/bbl and 17% lower y/y (Figure 3).

Figure 3: CBN's ability to intervene is limited by the fall in external reserves




Source: World Bank, Bloomberg, RMB Global Markets
Data as at November 2014

The CBN effectively owns 80% of Nigeria's external reserves. The remaining 20% is doled out to the federation and federal government. The CBN's portion is held in various financial instruments, exposing it to sudden capital stops. This leads us to believe that the CBN's terminal level for reserve liquidation is between US$35bn and US$36bn, which is between 5% and 7.6% lower than the level recorded at the beginning of November.

CBN likely to enact measures to counter currency weakness at November MPC meeting

Having exhausted its method of direct intervention, the central bank is likely to enact measures to counter currency weakness at its November MPC meeting.

Interest rate hikes might be in the offing to emphasise the CBN's objectives of price and exchange rate stability, but the relative ineffectiveness of the interest rate channel means that the CBN will be compelled to use the credit channel to communicate its policy intentions. This method is considered an enhancement mechanism rather than a main conduit for monetary policy as it strengthens the traditional interest rate impulse through bank lending and reserves. The CBN has used this particular path with great success in the last year, effectively tightening monetary conditions by raising the reserve requirement (RR) on public sector deposits from 12% to 75%. This has reduced commercial banks' liquid assets (by roughly NGN1 trillion) and dissuaded banks from extending credit to the public sector, which is dominated by the three tiers of government (refer to *SSA insight: Are monetary policy signals lost in translation in Nigeria?* 27 August 2014*).*

In the absence of adjustments to the deposit and lending spreads around the MPR, we envisage a possible reduction in the CBN's open forward FX position and a further increase in the cash reserve requirement on public sector deposits from 75% to 100% to drain excess naira from the system.

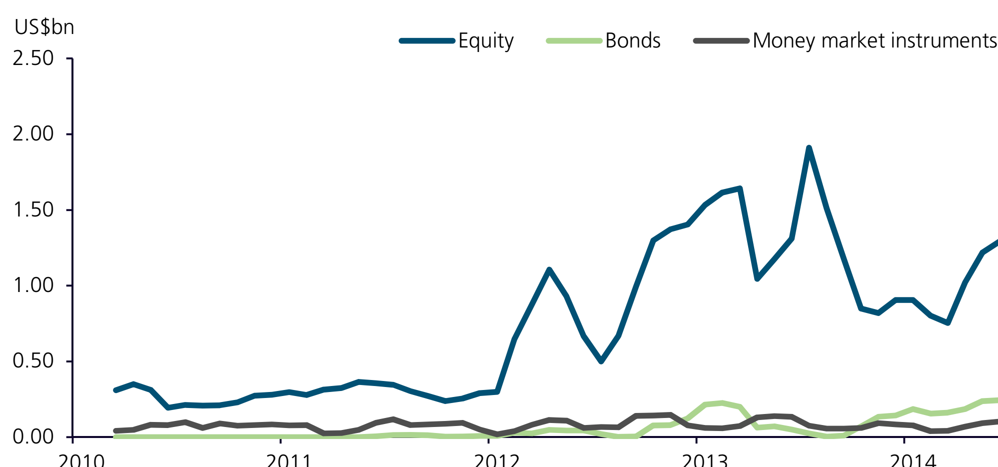
These actions could potentially mitigate naira losses but the growing divergence between the WDAS and BDC rates will hasten an official devaluation of the exchange rate. The current reference rate of 155 is immaterial to an interbank market that has consistently priced above the 3% spread to the official peg since January 2014.

## Necessary currency adjustment

Importers scurry to trim their currency exposures

The naira continues to weaken as importers scurry to trim their currency exposures amid concerns over the deteriorating oil price and restrictions imposed by the central bank. The interbank market is struggling to cope with the level of demand despite a few month-end US dollar sales by major oil conglomerates. A scarcity of portfolio inflows has aggravated the liquidity situation as investors shy away from the local capital markets amid fears of a currency devaluation.

Figure 4: Waning portfolio investment (3-month rolling average of portfolio inflows)




Source: CBN, RMB Global Markets
Data as at November 2014

Year-end interbank rate of USD/NGN169.60 based on US$85.00/bbl oil price

We have pencilled in a year-end interbank rate of USD/NGN169.60 based on a recovery in the oil price to US$85.00/bbl and average production of 2.1m bpd. Assuming that the spread over the official peg is retained at 3%, the inferred reference rate would be USD/NGN164.50. An adjustment to the official exchange rate does not imply an immediate normalisation in the interbank or BDC rates, which are likely to trade at premiums until the market is assured that authorities can adapt to lower oil prices and speculative capital inflows.

Attaining forecasted government revenues becomes more challenging if the oil price sustains a downward trend. A further 10% drop in the spot price would provoke sizeable adjustments to the nominal exchange rate. The effect would be exacerbated by an associated decline in production that would compel Nigerian authorities to devalue the naira by approximately 28.5% to achieve its budget revenue (Table 2) at the expense of its balance of payments position.

Table 4: Exchange rate required to achieve budgeted government revenues at different oil prices

| Oil price (US$/bbl) | Production (m bpd) | | | | | |
|---|---|---|---|---|---|---|
| | 1.90 | 1.95 | 1.98 | 2.00 | 2.10 | 2.20 |
| 70.0 | 227.6 | 221.7 | 218.4 | 216.2 | 205.9 | 196.5 |
| 75.0 | 212.4 | 207.0 | 203.8 | 201.8 | 192.2 | 183.4 |
| 80.0 | 199.1 | 194.0 | 191.1 | 189.2 | 180.2 | 172.0 |
| 85.0 | 187.4 | 182.6 | 179.8 | 178.0 | 169.6 | 161.9 |
| 90.0 | 177.0 | 172.5 | 169.9 | 168.2 | 160.1 | 152.9 |

Source: IMF, Bloomberg, RMB Global Markets
Data as at November 2014

## The reality of the situation

The economy will be subject to painful adjustments

The unsettling prospect for Nigeria is that irrespective of the monetary policy response, the economy will be subject to painful adjustments, reinforcing the need to diversify the country's export base and fiscal revenues. The naira will serve as an automatic stabiliser to combat the loss of productivity resulting from the adverse terms of trade shock. However, the pass through to inflation will affect consumption while tighter monetary conditions is likely to restrain investment, adversely impacting equity valuations as the financial sector is forced to endure unconventional policy tightening while local industrial firms struggle to absorb an increase in operational costs. While a weaker currency would assist managing the resultant dual deficits, a devaluation would not imply a natural convergence of the official, interbank and BDC rates as speculative investors become more sceptical of naira denominated assets, resulting in a steepening of the bond curve.

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