

Oil Price Surge and Oil Output in Nigeria: Effects of the Ukraine-Russia crisis

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Abstract

This study examined the Ukraine-Russia Crisis effect on oil price surge and oil output in Nigeria. The Taylor rule revealed that oil price and output increase significantly increases capital inflow and domestic exchange rate appreciation in oil-exporting countries. However, contemporary empirical evidence from Nigeria contravenes the Taylor rule. The objective is to reveal the Ukraine-Russia Crisis effect on the oil market and understand the factors behind Nigeria's inability to benefit from the windfall of the oil price. This study uses the supply-demand model to explain the cause-effect nexus. Findings from this study revealed a significant disruption in oil supply demand with a price surge above the \$100 mark in almost a decade. Owing to the Ukraine-Russia Crisis. The empirical finding indicates pipeline vandalization, oil theft, corruption, attacks on oil installations, lack of sectorial infrastructures, illegal oil bunkering, and general insecurity in the Niger Delta region as factors responsible for Nigeria's inability to benefit from the oil price windfall and close the oil supply-demand gap. This study recommends among others things stability, sectorial infrastructural development, security of region revival, and remodeling of the local refineries with sophisticated equipment to circumvent the exchange of crude oil for petroleum products with foreign refineries through a third party under Direct Sale Direct Purchase (DSDP). This implies that Nigeria will earn substantial foreign income from federation export.

Keywords: Russia, Ukraine, Nigeria, crisis, crude oil price,

1. Introduction

A crisis like a pandemic disrupts global socio-economic and socio-political activities. The Russia-Ukraine crisis presents a cascading impact on the already battered global oil market economy caused by COVID-19. This crisis has the potential to derail the economic transformation trajectories of low- and middle-income countries (L&MICs) like Nigeria. Where oil accounts for a significant percentage of total export and about 86% of foreign earnings inflow (Udo, Orugun, Manasseh, Abner & Abdulrahman, 2021; Yoshino & Alekhina 2016:). However, the Nigerian economy is still grappling with the ripple effect of the COVID-19 pandemic and its safety protocols.

The Russia-Ukraine crisis presents oil exporting nations with an unforeseen opportunity to recover from the pandemic-induced economic and financial turmoil and also increase their revenue from oil

price windfall. Before the crisis oil price increased from US\$80-US\$95. Although the crisis is secluded to Russian-Ukraine terrains, its impacts on L&MICs are felt through various channels including disruptions in trade and upward pressure in global prices of products (oil, metals, wheat) of which Russia and/or Ukraine are major global suppliers. Empirical literature accredits the disruption to oil supply-demand side effect, which is evidenced in Brent crude oil price increasing by 11% between 25 February 2022 and 1 April 2022. The economic repercussions and the direct cascading effects are on the European Union (EU) and the United States of America (USA) economies. The effects particularly for the EU relying on Russia for 62% of mineral products export, more than 50% of natural gas, 66% of oil and petroleum products, and about 50% of coal exports is high. While the USA is low for importing a trivial amount of oil from Russia. The effect exposed numerous geo-political risks factors

such as cessation in supply chains, inaccessibility of critical raw materials, commodity crisis, and the surge in the price of Brent oil above the \$100 mark for the first time since 2014 (Maijama'a & Musa, 2022).

The energy commodity market is global, thus, a unit change in the price of oil in one country ultimately affects the prices of oil everywhere. The Organisation for Economic Co-operation and Development (OECD) (2022) estimates that global GDP growth could reduce by over 1% point in the first quarter of 2022. These estimates would translate to global costs of between \$380 billion and \$950 billion in 2022.

In a bid to de-escalate the crisis, the spillover effects of the retaliatory sanctions against Russia exacerbate pressures on industries and the global supply chain. The evasion of these sanctions' offers oil exporting countries like Nigeria, an unanticipated opportunity to increase their revenue and recover from the market's pandemic-induced. As EU countries search for alternative energy sources. The high oil price windfall is an opportunity for oil-exporting African countries to develop the burgeoning oil and gas sectors, boost economic growth, and revenues, and save from an excess crude account (ECA) (Bradstock, 2022) (see Figure 1).

However, indirect consequences are bound by the increasing global demand for African oil. These consequences include debt distress, inequality, and reduced access to electricity and cooking fuel while undermining the progress of the smooth transition to eco-friendly energy sources among others.

Figure 1 Nigeria-Bonny Light Oil Price



Source: Authors Computation (2022)

The study focuses on Nigeria and is justified by her position as the second largest producer of about 1.3million barrels per day (bpd) of oil in Africa, projected among other African oil exporting countries to benefit immensely from the global oil supply-demand gap and oil price windfall instigated by the Russia-Ukraine crisis.

On the contrary, the geometric decline in daily oil production from 2.2 million bpd in 2015 to 1.7million bpd in 2018 and 1.3million (bpd) in 2022 baskets Nigeria's economic, social and financial opportunity to benefit from the oil price windfall and restored the already battered oil market economy (Kolawole, 2022) (see Figure 2).

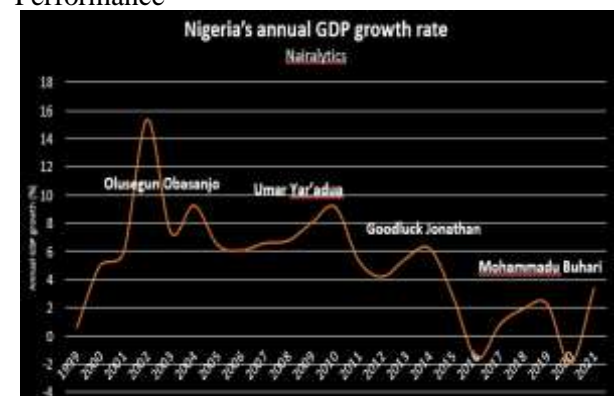
Figure 2: Oil Output in Thousand Barrels Per Day



Source: OPEC (2022)

The empirical findings of Mbasua, Muhammad, and Abia, (2016), Udoh, Abner, Udo, and Lovlyn (2019), Okonkwo, Ndubuisi- Okolo, and Theresa (2015) Bradstock, (2022), and Kolawole, (2022) revealed that a unit decline in oil revenue and production output to meet foreign trade obligations and service debt causes economic and financial instability. Such is evident in the various episodes of economic underperformance in various administrations from 1999-till date. GDP growth rate proxies economic performance and is worst under the current administration owing to the oil production decline to meet the supply-demand gap (see Figure 3).

Figure 3: Nigeria's Annual GDP Growth Rate Performance



Source: Nairalytics (2022)

The high oil price windfall initiated by this crisis and Nigeria's inability to benefit from it begs the following questions: (1) What are the integral factors responsible for the oil output decline? (2) To

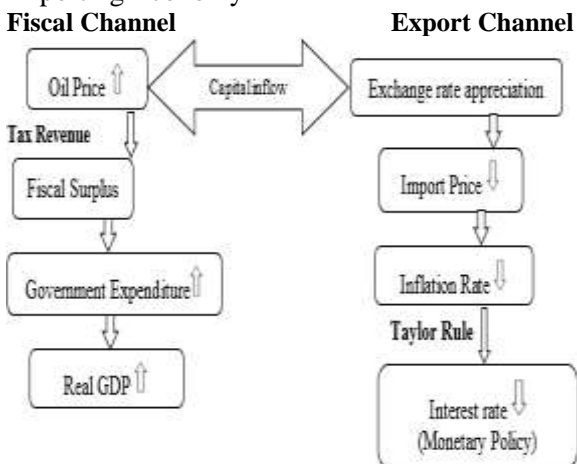
what extent is the impact-benefit of the oil price windfall on Nigeria to increase its output capacity? To proffer answers to these questions, it's vital to establish that oil output and prices are critical determinants of economic growth given their web of influence on macroeconomic and microeconomic indicators.

2. Review of Related Literature

The cause-effect nexus between oil output and price has been reviewed expansively by empirical literature in oil exporting and importing countries with contradictory results. These studies, however, ignore integral factors responsible for the oil output decline, and the impact of the crisis in Nigeria. However, oil price increase impacts positively on oil-exporting nations where oil supply-demand is about equilibrium and negatively on oil-importing nations.

According to Yoshino and Alekhina (2016), oil prices impact energy-exporting countries through export and fiscal channels. As such the Taylor rule revealed that oil price increases inferred capital inflow (forex) and domestic exchange rate appreciation in oil-exporting countries. While interest rates and the general price level are on the decline (deflation) with monetary policy reaction. On the fiscal channel, an oil price surge implies a tax increase, fiscal surplus, government expenditure, and GDP increase (see Figure 1).

Figure 1: Transition Channels of Oil Prices to Oil Exporting Economy



Source: Yoshino and Alekhina (2016)

However, Nigeria's socio-economic, socio-political, and business climate contravenes Taylor's rule. In almost a decade of global oil price surge, indicators of growth and development in Nigeria are in the negative compelling the government to pay billions of dollars in fuel subsidies which have resulted in budget deficits. Notwithstanding her position as the

second-largest producer of oil in 2022 Africa. The sustained practice of petrol, diesel, and kerosene subsidies has diminished its fiscal and financial positions. The 2022 oil benchmark peg at \$62 bdp was for a budget surplus. Thus, the current budget deficits led credence to various integral factors discussed below.

Integral Factors Declining Oil Output to Meet Supply-Demand Gap

The economic and business sanctions against Russia have significantly disrupted the oil supply-demand chain. The scarcity created by this disruption places oil-exporting countries in an advantageous spot. The oil price and output impact are exogenous and their fluctuations spur imbalances. Empirical literature attributes this to masterminded integral factors of oil theft, corruption, attacks on oil installations by militants, and lack of sectorial infrastructures among others (Udo, Orugun, Manasseh, Abner & Abdulrahman, 2021).

The March 2003 closure of operational activities by major oil firms due to attacks on oil installations and kidnapping translated to a massive 40% decline in oil output in Nigeria. As such from 2011-2014 Nigeria lost a total volume of 38.6 million crude oil bdp 2011, costing \$4.4 billion. In 2012, 23.8 million bdp of crude oil was lost amounting to \$2.7 billion. As of 2014, Nigeria lost 40.2 million barrels of crude oil amounting to \$4.1 billion.

The February 2016 attack on the Focado export line by militants also led to a loss of 79 million bdp crude oil, causing oil firms and the nation a huge loss of revenue. Udoh, Abner, Udo, and Lovlyn (2019) collaborate on this claim, accrediting the daily oil output decline from 2.2 million-1.7 million bdp to insecurity and militancy activities between 2015-2018 in the Niger Delta. The 2022 oil output decline from the heart of raising oil prices can be accredited majorly to oil theft, lack of sectorial infrastructures, and illegal oil bunkering.

According to the immediate past Director General and Chief Executive of the Nigerian Maritime Administration and Safety Agency (NIMASA), Dakuku Peterside Nigeria lost about \$3.27 billion worth of oil to vandalism in the 1st quarter of 2021. Which translated to an average monthly value loss of \$233.99m, and a daily average value loss of \$7.72m coming mostly from the Bonny Terminal Network, Forcados Terminal Network, and Brass Terminal Network.

The Managing Director of Waltersmith Petroman, Chikeze Nwosu, also revealed that oil theft is on the geometric increase from 4% reported to 91% in

December 2021, 75% in January 2022, and 82% in February 2022.

Business Insider Africa (2022) collaborated these claims, revealing that only 5% of the total crude oil pumped through the Trans Niger Pipeline (a major pipeline crisscrossing through the creeks of the Niger Delta) between October 2021 and February 2022 reach its final destination; 75-80% are intercepted by illegal oil bunkers and exported while 20% are illegally refined in 'refineries' dotting the countryside of the Niger Delta creeks. Oil theft is a problem observed to be skyrocketing due to the global oil price surge.

Empirical findings accredit most oil theft and installation attacks to negligence of host communities by the multinational firms and contractors receiving practically half of the oil profits, at the detriment of local contractors and host communities suffering from the environmental degradation arising from oil exploration.

Oberiri (2017) attributes the attacks to the Nigerian government's involvement in the military to violently suppress the voices of the activists the most notable example is Ken SaroWiwa. From the review of extant literature, there is a significant causal nexus between the oil output decline and Nigeria's inability to benefit from the oil price surge is observed. Previous empirical studies on oil sector performance collaborate with the claims and position of this study.

The findings of Musa et al. (2019) revealed that crude oil prices positively impact economic growth in Nigeria in 1982 due to the functionality of the refineries. Mukhtarov, Humbatova, Mammadli, and Hajiyev (2021) using the Structural Vector Autoregressive (SVAR) method reported in Azerbaijan, that increase in crude oil price increases national income and negatively affects the exchange rate. Sarmah and Bal (2021) in India substantiated the findings of Mukhtarov et al. (2021); Musa et al. (2019) using SVAR on the monthly data from April 1997 to July 2016. Agbo (2020) revealed that crude oil prices have a negative and non-significant effect on Nigeria's inflation rate owing to oil price fluctuations. In the short run, Ighosewe, Akan, and Agbogun (2021) argued that fluctuation in crude oil prices improved the Nigerian economy significantly.

In another development, in Nigeria Agu and Nyatanga (2021) argued that expected oil price has the prospect of positively impacting inflation both in the long run and short run using the ARDL model. Adesete and Bankole (2020) using the SVAR model observed that oil price shock negatively impacts selected macroeconomic indicators such as economic growth, import,

investment, inflation, and the exchange rate except for export in the long term. Olayungbo and Ojeyinka (2021) also report that petroleum prices respond asymmetrically to changes in crude oil prices in both the long run and short run in Nigeria. In summary, previous studies of Sarmah and Bal (2021); Agu and Nyatanga (2021); Adesete and Bankole (2020); Mukhtarov et al. (2021); Ighosewe, Akan and Agbogun (2021);, Olayungbo and Ojeyinka (2021) on crude oil prices and economic performance in specific and cross-countries revealed that crude oil prices impact positively on economic growth and cause changes in domestic petroleum pump price.

Theoretical Underpinning

Grounded on theoretical underpinning which asserts that a decline in oil output and price shocks adversely affect economic activities through the supply-demand side effect. The supply-side effect revealed that a unit decrease in oil output adversely economic welfare, growth, and development. Oil output decline mirrors a change triggered by either geopolitical or social events, disrupting supply (supply) such as oil theft, and insecurity leading to attacks on oil facilities among others.

Conclusion

The global consequence of the Russia-Ukraine crisis is colossal in various dimensions, its evident in the energy supply-demand gap, and the global food supply chain disruption. Which has resulted in skyrocketing energy prices, commodity prices, and global inflation in various countries. The windfall in crude oil prices instigated by this crisis is of no benefit to Nigeria, as a result of colossal oil output decline attributed to various integral factors of; pipeline vandalism, corruption, kidnapping, oil theft/ oil bunkering, attacks on oil facilities and general insecurity in the Niger Delta region. The study recommends among others things stability, sectorial infrastructural development, security of the region, revival and remodeling of the local refineries with sophisticated equipment to circumvent the exchange of crude oil for petroleum products with foreign refineries through a third party under Direct Sale Direct Purchase (DSDP). This implies that Nigeria will earn substantial foreign income from federation export.

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