Regulation or Deregulation:
How Sustainable in the Present Economic Reality?

This study was funded by
The Facility for Oil Sector Transparency (FOSTER).
The Centre is grateful for the financial support.
Regulation or Deregulation: How Sustainable in the Present Economic Reality?

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Introduction

The strategic role is incontrovertible that the downstream sub-sector of the petroleum industry plays in economic growth, sustainable development and national security in Nigeria, Africa’s largest economy and the most populated country, spread over almost 1 million square kilometres. Therefore, it is understandable that when the Federal Government decided in the early 1970s to take over the ‘commanding heights of the economy’, following the unprecedented large government revenue inflows from the exports of crude oil, the downstream petroleum sector became a prime target of attention. Since Nigeria became a major world net exporter of petroleum in the 1970s, five major policy objectives have been explicitly or implicitly pursued. These objectives are: (i) the provision of inexpensive and ‘affordable’ petroleum products (petrol, kerosene and diesel) to all consumers through price regulation; (ii) uniform product pricing regime as a mechanism to spread the benefit of petroleum exploitation to all citizens despite locational differences; (iii) the insulation of domestic consumers from price fluctuations in the world oil markets through price regulation; (iv) meeting the domestic demand for refined products in a rapidly growing economy; and (v) value addition through the export of refined products and eventually making Nigeria the regional hub for petroleum refining and export.

However, four decades on, and despite its strategic importance, the sector has performed inefficiently during most of the period. The most vivid illustration of the sector’s inefficient performance
is the perennial paradox of spending billions of dollars annually to import petroleum products despite domestic refining capacity that exceeds domestic consumption by a significant margin. Other dimensions of the sector’s poor performance include: poor implementation of strategic investment and management of value chain addition, supply inefficiencies highlighted by low utilization of refining capacity and poor product distribution network driven by inadequate, poorly-timed and ineffective maintenance of downstream infrastructure (refineries, pipeline network and depots). In addition, there were problems of severe petroleum product shortages and poor financial performance, due partly to low cost efficiency and price regulation which sets prices below cost. Besides, it is difficult to find petrol and kerosene to buy at official prices in most cities. In general, petrol and kerosene are sold to most consumers at far higher prices than the regulated official prices (Ozo-Eson, 2013). The effort of successive governments to reform the sector and make Nigeria a regional downstream petroleum refining and export hub has not yielded much positive result.

The adverse effects of the poorly-performing and state-dominated and regulated downstream petroleum sector on economic growth, social development and the well-being of the people have continued to generate much public debate. The effects of the poor performance include the following: higher economic and social cost of production and consumption activities, large production losses and significant reduction in the profitability of enterprises due to higher production and transport costs associated with fuel supply disruptions, higher cost of living and the decline in the well-being of the population associated with the dysfunctional downstream petroleum sector.

Households and business enterprises have experienced much frustration with the dysfunctional downstream petroleum sector. The misery associated with the protracted kerosene market disequilibrium has received less public attention and media coverage, perhaps because those mostly affected are the less vocal, low-income households. The frustration and misery of households and business enterprises have been exacerbated by the return to business-as-usual syndrome after each market disruption and the exposure of gross irregularities and corruption associated with
fuel subsidy payments to oil importers and marketers. Arguably, the frustration of citizens with the gross irregularities and corruption associated with fuel subsidy payments to highly-connected oil importers and marketers triggered the mass protest in January 2012, in response to the sharp increase in the prices of petrol and kerosene. The policy response to the protest and the emerging social and political problems resulted in a reduction in the price of petrol to N97 while the price of kerosene remained unchanged at N50 per litre. In addition, the Subsidy Reinvestment and Empowerment Programme (SURE-P) was introduced to reduce the adverse impact of the substantial increase in the price of petrol on consumers.

The poor outcomes in downstream petroleum strongly suggest that the government grossly underrated the economic, financial, political, institutional, regulatory and technical constraints that confronted the achievement of the four policy objectives identified earlier. The most instructive lesson emerging from the developments in the sector is that achieving sustainable downstream petroleum development would depend much on efficient sector performance driven by robust sector operations and well-implemented and monitored energy infrastructure investment, including effective management supported by appropriate policy, as well as institutional and regulatory frameworks.

Although, there is an urgent need to eliminate the adverse socio-economic and environmental effects of the sector’s inefficiencies on the economy, comprehensive reform of the sector has admittedly been constrained by various factors. Illustrating this point is the stalling of the Petroleum Industry Bill (PIB) in its various forms in the National Assembly since 2007. Given the constellation of strategic interest groups arrayed against parts of the omnibus PIB, the prospect of the current version of the bill becoming law to shape downstream sector development during the legislative calendar of this National Assembly seems low despite the optimism of public officials. As the 2015 Presidential elections approach, the odds against the Bill becoming an Act seem high. However, the impasse in passing the PIB into law strongly suggests that getting policies and institutions to ensure that the correct choices are made in the sector, thereby making Nigeria a competitive regional petroleum hub, may remain elusive.
The persistence of the sector’s problems over the years reveals serious political and social problems.

The political economy of oil resource rent distribution in Nigeria, where the sharing of oil rent remains a contentious political issue, largely explains the reluctance of the government to carry out far-reaching reforms in the sector over the years. Exacerbating this reluctance is the convergence of interest of two diverse but powerful lobbies against efficiency-oriented reforms in the sector, namely, the powerful petroleum industry labour unions and some marketers who benefit disproportionately from subsidy-driven importation of petroleum products.9 These two groups pose significant barriers to meaningful reforms being implemented in the sector. Yet, reforming the sector to achieve robust regional and global competitiveness – a win-win strategy for both labour and business enterprises – is a matter of great urgency and economic importance in the quest for rapid and sustainable development in the next quarter of a century.

Several developments provide the motivation for this study. One is the recent re-emergence of economically and socially disruptive fuel shortages, a reminder of the queues associated with the notorious fuel scarcity of the 1990s. The other is how to deal with the paradox of high fuel import-dependence in an economy that spends billions of dollars annually to import petroleum products despite domestic refining capacity far exceeding domestic consumption.10 There is also the fuel subsidy saga of recent years that saw subsidy payment explode from N900 billion in 2010 to N2.1 trillion, in 2011.11 In recent times, irregularities in kerosene subsidy payment have also become an important political issue under discussion in the House of Representatives.

The foregoing discussion raises several questions of analytical and policy interests. Among these are the following:

i. What explains the poor downstream petroleum sector performance, and why has it persisted?

ii. What has been the impact of regulation on the downstream petroleum sector outcomes?

iii. What lessons have we learned from the deregulation of the
iv. Does deregulation matter in the emergence of a robust and globally competitive domestic downstream petroleum sector that is able to meet domestic and regional demand for petroleum across the value chains?

v. How sustainable are the contrasting policies of regulation and deregulation given the present economic reality?

vi. What lessons have we learned concerning optimal design of regulation and deregulation processes and institutions?

vii. Where should government responsibility/intervention begin and where should it end in the downstream petroleum sector, given the problem of information asymmetry and the legacy of past government failures in the sector?

viii. What is the role of regulatory institutions in the emergence of a robust and globally-competitive domestic downstream petroleum sector which is able to meet domestic and regional demand for petroleum across the value chains?

ix. What is required to eliminate permanently the paradox of a world ranking oil exporting country having difficulty in delivering oil products to its end users?

x. How can the downstream petroleum sector become competitive and corruption-free with due cognizance of the longer-term interest of the economy, environmental quality and the social well-being of the general population?

Though these questions are not exhaustive, they suffice to bring into focus fundamental issues connected with the elimination of the inefficiencies and paradoxes in sector conduct and performance. More importantly, they provide a useful context for the emergence of a robust and globally-competitive domestic downstream petroleum sector. Arguably, how policy makers and industry stakeholders deal with the configuration of economic, social, political, strategic, technical, and environmental challenges associated with establishing a robust and globally-competitive downstream petroleum sector in Africa’s largest economy and most populous country, will determine the likelihood of its becoming one of the top 20 economies in the world by 2020.
The main objective of this paper is to provide some answers to these questions in order to illuminate the issues associated with deregulation and regulation in the downstream petroleum sector in the context of the current economic realities in Nigeria. The paper suggests an agenda for action for establishing a robust and globally-competitive downstream petroleum sector in Nigeria with the ultimate objective of being the regional hub for oil and gas value chain in Africa.

The two major conclusions of this paper are: (i) the poor downstream petroleum performance is a classic illustration of how inappropriate incentive structure combines with institutional and regulatory failures to produce poor economic choices, inefficient allocation of resources and, ultimately, inefficient sector performance outcomes; and (ii) the achievement of a robust and efficient petroleum products sector in Nigeria. Becoming the petroleum products hub in the sub-region requires putting in place appropriate legal and incentive-compatible regulatory policy frameworks and other sector reforms that will induce market participants to adopt more efficient investment, production, distribution, and consumption practices. It will involve changing the rules of the game and reforming the market institutions, laws and regulations to deliver a competitive and environmentally-friendly sector outcome. A sustainable downstream petroleum future is central to affording a more prosperous economic future for Nigeria.

The road ahead is challenging, but the future is also promising provided well-implemented sectoral policies and appropriate institutional and regulatory frameworks are put in place. What is needed is to chart a new course defined by a level playing business environment that is conducive for both private and public investors to make efficient investment and supply decisions backed by the political will to support Nigeria to become the petroleum-driven industrial development hub in ECOWAS and Africa region. Good economics and politics are essential for a robust downstream petroleum performance. The political will to support the appropriate investment, supply and demand trajectories will be fundamental to achieving sustainable downstream national and regional capacity requirements for sustainable growth and
development. Also, the political, economic and institutional environment of decision making and implementation must be factored into the debate on the way forward in the sector, especially concerning regulation and deregulation.

The rest of the paper is organized as follows: Section 2 discusses the background to the problem. Section 3 examines the policy, legal, and institutional landscape. The conclusions are presented in Section 4.
Background to the Problem

The discussion in this section provides an overview of the developments in the sector and a descriptive analysis of the relationship between the sector and the economy in terms of some stylized facts that capture the main defining characteristics of the sector.

2.1 Fact 1: Dependency of the Economy on the Petroleum Sector

The petroleum sector remains an important driver of the Nigerian economy. The key role of the petroleum sector in Nigeria is evident in its contribution to public sector finances, external trade and payments, Gross Domestic Product and economic growth. Figures 1 through 4 provides statistical evidence for the dependency of the economy on petroleum. The important though declining role of petroleum in economic growth is shown in Figure 1. Figure 2, which shows the trend in petroleum and total government revenues during the past three decades, confirms the dominant role of petroleum revenues in total government revenues. The share of oil revenues in total government revenues fluctuated between 70 and 90 per cent between 1981 and 2012. From the external sector perspective, the overriding role of petroleum in total exports and fuel imports in total imports are shown in Figure 3. The share of petroleum exports in total export consistently exceeded 90 per cent during the period. The share of fuel imports in total imports has risen steadily during the last three decades.
from less than 5 per cent in 1981 to more than 30 per cent in 2012. The fact that almost one-third of total imports is made up of fuel imports should be of serious concern to policy makers. The concern is associated with the foreign exchange reserves and balance of payments implications of such rising fuel imports. For example, approximately US$19 billion was spent on energy imports, largely on refined petroleum products in 2012. The paradox is in the fuel import-dependence in an economy that has four refineries with greater domestic capacity than domestic demand. Figure 4 shows the trend in the exchange rate, and crude oil prices. It reveals an initial appreciation and subsequent depreciation of the Naira during the past fifteen years. Apart from the fall in crude oil prices in 2008 and 2009, due largely to the global financial crisis, oil prices increased substantially between 1998 and 2012.

Figure 1: Oil Sector Contribution to Real GDP and Real GDP Growth, 1985-2012

Source: CBN Annual Statistical Bulletin
Figure 2: The Share of Oil Revenue in Total Government Revenues, 1981-2012
Source: Central Bank of Nigeria (CBN) 2013 Annual Statistical Bulletin

Figure 3: Oil Sector Contribution to Total Export and Import, 1981-2012
Source: Central Bank of Nigeria (CBN) 2013 Annual Statistical Bulletin
Figure 4: Crude Oil Price and Exchange Rate in Nigeria 1997-2012
Source: Central Bank of Nigeria (CBN) 2013 Annual Statistical Bulletin

2.2 Fact 2: Inefficiencies Pervade the Downstream Petroleum Supply Side

An overview of the downstream petroleum supply side focusing on refining capacities, production and imports is presented in Figures 5 through 7 and Table 1. Three key observations summarize the supply side inefficiencies. First is the downward trend in domestic production of petroleum products between 1997 and 2012 that is observable in Figure 5. The poor performance of the refining sector, which is government-owned and operated by the Products Pipeline and Marketing Company (PPMC), a subsidiary of NNPC, is evident in the graph. Nigeria, which, on average, produces more than two million barrels of oil per day and has four domestic refineries with capacity to refine 450,000 barrels of petroleum products per day, is unable to adequately meet the domestic consumption of petrol, diesel, kerosene, aviation fuel, residual fuel oil and liquefied petroleum gas (LPG) which totals less than 300,000 barrels per day. Notably, in recent several weeks, the economy has been experiencing significant fuel supply shortages at most petrol stations. The inability of PPMC to refine petroleum products to meet domestic demand is due to
technical, managerial and financial challenges underpinned by political interference in the operations of the company. The installed capacity is more than enough rated capacity to meet domestic consumption. The current configuration of Nigerian refineries and when they were constructed is shown in Table 1. The last refinery constructed, namely, the second Port Harcourt refinery, with a capacity of 150,000 barrels a day, was brought on-stream in 1989. This refinery was built primarily to export petroleum products but domestic requirements combined with the poor state of other refineries made it to produce solely for domestic consumption since inception.

Second, and as Figure 6 shows clearly, is very low capacity utilization at these refineries. It also reveals the low operational and cost efficiency in the running of the state-owned Nigerian refineries.12

The poor performance of the refineries has several dimensions. First, is the absurdity of fuel import dependence of about one-third of total imports (Figure 7) despite domestic capacity which, if fully functional, would have been sufficient to eliminate most of the fuel imports. Second, is the financial consequence of such import dependence, namely, escalating foreign exchange cost, subsidy payment and the fiscal burden associated with subsidizing corruption-laden import-driven domestic supply of petroleum products across the country.

Figure 5: Output from Nigeria’s Domestic Refineries, 1997-2012

Source: NNPC
Figure 6: Nigerian Refineries Capacity Utilization in Percentages, 1997-2012

Source: NNPC

Table 1: Installed Refinery Capacity in Nigeria in Barrels per day

<table>
<thead>
<tr>
<th>Year Constructed</th>
<th>Installed Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warri</td>
<td>125,000</td>
</tr>
<tr>
<td>Kaduna</td>
<td>110,000</td>
</tr>
<tr>
<td>Port Harcourt 1</td>
<td>60,000</td>
</tr>
<tr>
<td>Port Harcourt 2</td>
<td>150,000</td>
</tr>
</tbody>
</table>


Since 1990, the average capacity utilization has never attained 60 per cent on a yearly basis. In 2000, average capacity utilization, in fact, collapsed to about 20 per cent as most of the refineries were shut due to technical problem. Poor management on the part of NNPC and the Products and Pipelines Marketing Company (PPMC) are also part of the problem. The consequence has been the serious deterioration of facilities. Three of the refineries got burnt in the last two decades (Kaduna twice and Port Harcourt once). Overall, the average capacity utilization rate in Nigeria is
among the lowest globally. The international norm is 75-95 per cent.\textsuperscript{13} The sharp decline in domestic production and deterioration in supply facilities is due in part to poor maintenance, resulting from poor funding and rent-seeking activities by the government and its agents. The latter stalled the carrying out of scheduled turnaround maintenance at the three refineries. Public sector ownership has been a major factor in the poor performance of the refineries. Satisfactory progress towards restoring these state-owned refineries to acceptable international standards for any length of time has not succeeded over the years despite the enormous resources committed to them and several government pronouncements and Commissions of Inquiries.\textsuperscript{14} The cost of financing the poor performance of state-owned PPMC has been a major financial burden on public finances. According to official figures, billions of US dollars have supposedly been spent on the rehabilitation of the domestic refineries but no significant and sustained improvement in refinery utilization and fuel supply has emerged.

Third is massive fuel import dependence in the context of excess domestic refining capacity. Inadequate domestic production from the four refineries necessitated massive importation of fuel regularly since the second half of the 1990s. However, the poor management of fuel imports resulting in failure of imports to arrive on time to compensate for the poor production record of domestic refineries has often exacerbated the market crisis. Figure 7 shows an alarming trend in oil import as a share of total imports. As Figure 2 shows, the share of fuel in total imports has risen steadily during the last three decades from less than 5 per cent in 1981 to more than 30 per cent in 2012. The fact that almost one-third of total imports is made up of fuel imports is both a concern and a paradox. The concern is associated with the foreign exchange reserves and balance of payments implications of such rising fuel imports. For example, approximately US$19 billion was spent on energy imports, largely on refined petroleum products in 2012. The paradox is connected with massive fuel import dependence in the context of excess domestic refining capacity.

Fourth, is the poor performance of product pipeline and storage depot network infrastructure which have been characterized by technical inefficiency in the depot and in the pipeline
and distribution network due to poorly maintained structures. The poor maintenance of depot, pipeline and distribution network have aged the equipment faster than designed. The poor conditions of the pipeline network highlighted by pipeline ruptures and exacerbated by frequent acts of pipeline vandalism, especially in the oil producing areas, have resulted in extensive bridging (road transportation) of products from the fuel depots and refineries of PPMC in the south to petrol stations in the northern parts of the country. During the extensive transportation of fuel across the country through trucks, large volumes of fuel regularly disappear to feed the highly profitable parallel fuel markets in the country and neighbouring countries. When supply disruption occurs due to production failures in the refineries or unanticipated delays in imports arriving, the poor state of pipelines and storage depots magnifies the supply disruptions. Supply disruptions due to production failures in the refineries or unanticipated delays in imports have occurred repeatedly for several decades though with declining intensity as private investment in storage facilities has grown substantially, induced by subsidy payments. Notably, prior

Figure 7: Nigeria’s Import of Petroleum Products (‘000 barrels per day), 1995-2012
Source: OPEC Annual Statistical Bulletin
to the government monopolizing refining and distribution in 1973, the major oil marketing companies managed the product storage and distribution situation more effectively with the result that no noticeable product shortages occurred in the different parts of the country. The difference was that they operated under market-oriented conditions with no price regulation. It should be pointed out that under a regulated market environment that prevailed in the post-1973 era until recent partial price deregulation, because profit-motivated private companies saw no benefit from inter-temporal arbitrage activities associated with inventory (storage) movement through prices reflecting future fuel scarcities, they were not willing to play any significant complementary role in increasing domestic storage capacity and optimally managing domestic fuel inventory to minimize fuel crisis. The deregulation initiatives of recent years have changed the picture dramatically with large investment made by the private sector in storage facilities especially in Lagos. Providing the necessary incentive to the private sector to increase their storage capacity across the country to complement the effort of government is fundamental to eliminating Nigeria’s perennial fuel market disequilibrium. In effect, high cost and inefficient domestic production and distribution systems were key factors on the supply side in Nigeria’s perennial fuel market disequilibrium.15

2.3 Fact 3: Petroleum Products Market Structure, Conduct and Performance

Prior to 1973, foreign private multinational companies dominated the fuel market from product refining to distribution. The domestic market for the sale of petroleum products was basically oligopolistic with non-price competition among the mainly foreign multinational companies, namely, Shell, BP, Total, AGIP, Esso and Mobil. However, since the early 1970s, government control and intervention in the energy sector have been pervasive. The intervention of the government in the oil industry in the 1970s was to ensure national control and ownership over the strategic natural resource. The desire to limit foreign ownership and control over key national assets was expected to strengthen national economic sovereignty. An additional factor was the need to achieve
otherwise conflicting social and economic objectives implicit in balanced regional development and income redistribution. The downstream segment of the petroleum industry became and remains essentially a government monopoly; a reflection of economic, political and ideological factors.

The retailing of petroleum products has been subjected to more competition in recent years. Apart from eight major marketers, which control about 50 per cent of the products market, there are about 1,200 independent indigenous retail companies. There is a multiplicity of fuel stations owned by independent marketers. These largely single dealerships have identified major sources of leakages to illegitimate fuel market. However, competition is not price-based since the government fixes the prices of products. The retail market, which is dominated by private enterprise also experience the same restraint on their operations as the state oil monopoly, PPMC.

The dominant role of the public sector in the provision of fuel evident in the pervasive government intervention either through direct control or regulation arose for a number of reasons, such as, the economic, social and political importance of the sector; and the contention that the large capital requirement of the sector could only be handled by the government as the private sector was believed to be incapable of raising such a large amount of capital. The poor performance of the state-owned PPMC, the dominant factor in downstream petroleum, largely reflects the negative consequences of how public property rights have been exercised. The available evidence suggests strongly that the nature and the consequences of exercising the property rights of government ownership, which allows the government to exert excessive interference and control over the pricing and investment policies of these companies, played an important role in the crisis in the sector. Motivation and efficiency in economic organizations, public enterprises inclusive, are influenced by the institutional milieu of decision making and the type of market structure within which such organization functions. The production, allocative and financial inefficiency that pervades the fuel sub-sector in Nigeria can be largely explained by the inefficiencies that are mainly associated with the consequences of the exercise of public ownership and property rights. In addition, poor capacity
utilization, plant level inefficiency, overstaffing in non-technical areas, lower than expected labour productivity because of poor incentive system, and managerial inefficiency due to internal and external (political) constraints reflect agency problems in the sector. In addition, the pseudo-civil service environment ensured that the use of other economic resources did not coincide with the level that minimized the costs of supply.

Figure 8A: PPMS Distribution by Marketing Companies in 2012

Figure 8B: AGO Distribution by Marketing Companies in 2012

Figure 8C: Kerosine Distribution by Marketing Companies in 2012

Source: NNPC Annual Statistical Bulletin 2012
2.4 Fact 4: Demand for Petrol and Kerosene
Keep Rising Steadily

The response of households and business enterprises as well as other consumers to subsidized and uniform pricing of petroleum products and rising real incomes in kerosene associated with economic growth is apparent in the general upward trend in the demand for petrol that can be observed in Figure 8. Economic growth has been very impressive in the last decade, with Nigeria being among the set of countries growing above 6 per cent annually in the past decade. This has fuelled the growth in the demand for petroleum products significantly. In addition, the administratively determined and subsidized pricing which shielded consumers from the sharp price increases in the world oil markets fuelled inefficient use of petroleum products, with significant adverse impact on the environment. Petrol dominates domestic consumption of petroleum products. Subsidized pricing has been a major factor in the relative fuel shares. The relative shares of each fuel type will certainly change when price is deregulated in the markets for gasoline and kerosene. The increase in their relative prices would impact their relative shares as consumers respond to relative price changes through income and substitution effects. The relative shares of fuels whose market prices have been deregulated have declined relative to those with price regulation.

Four key observations summarize the key developments in the sector from demand perspective. First, is the general upward trend in the demand for petroleum products in Nigeria as can be observed in Figures 9 through 11. The main drivers of the steady growth are subsidized and uniform product pricing, and economic growth. Administratively determined and subsidized pricing which shielded consumers from the sharp price increases in the world oil markets fuelled inefficient use of petroleum products, with significant adverse impact on the environment. Second, reliable and consistent official data regarding the actual level of domestic consumption of petroleum products remain a challenge. As can be observed in the graphs, there is significant divergence between official NNPC data on domestic consumption and those of the international agencies, IEA and OPEC. In all the cases, NNPC
figures are far less than those of these international energy organizations. The discrepancy in statistics also played out during the National Assembly presentation by the NNPC, Ministry of Petroleum Resources and the Ministry of Finance during the fuel subsidy debate of 2012. Having credible data is central to proper domestic planning in the energy sector. Third, is the dominance of gasoline in domestic consumption. Subsidized pricing has been a major factor in the relative fuel shares. The relative shares of each fuel type will certainly change when price regulation is eliminated in the markets for gasoline and kerosene. The increase in their relative prices with price deregulation would impact the relative share as consumers respond to relative price changes through substitution effects. The relative shares of fuels whose markets have been deregulated have declined relative to those with price regulation.

Fourth, reliable and consistent official data regarding the actual level of domestic consumption of petroleum products remain a challenge. There are often significant divergences between official NNPC data and those of the international agencies such as IEA and OPEC on domestic consumption. The discrepancy in statistics also played out during the National Assembly presentation by the NNPC, Ministry of Petroleum Resources and the Ministry of Finance during the fuel subsidy debate of 2012. Having credible data is central to proper domestic planning in the energy sector.

Figure 9: Nigeria’s PMS Consumption from different sources, 1971-2012
Source: IEA, NNPC & OPEC
Figure 10: Nigeria's Consumption of AGO (Diesel) from different sources, 1971-2012
Source: IEA & NNPC

Figure 11: Nigeria's Consumption of Household Kerosene from different sources, 1971-2012
Source: IEA, NNPC & OPEC
2.5 Fact 5: Rising Nominal Petroleum Product Prices

Nominal petroleum product prices have trended up over the years, with sharp increases in the last decade. The most recent increase in 2012 saw price jump by 49 per cent from N65 to N97 per litre for petrol, a regulated product. The high level of prices of the deregulated products, diesel, aviation fuel, residual fuel oil and LPG compared to petrol and kerosene, and other market failures that have characterized the deregulated markets, have been used by critics of what awaits deregulation of kerosene and petrol. In the context of the political economy of oil rent distribution in Nigeria and the forthcoming 2015 Presidential elections, the prospect for any major sectoral reform, including pricing, seems remote. Figure 12 shows the evolution in the retail prices of petrol between 1978 and 2012. A key observation in the figure is the sharp increase in prices in the last decade. Figure 13 depicts the more recent price pattern and trend for the major petroleum products. The steady rise in the price of petrol and diesel contrasts sharply with that of kerosene in the last decade. The trend reflects the policy of protecting the consumers of kerosene. The decontrol of prices of diesel and residual fuel oil and aviation fuel has resulted in far higher prices than petrol. Figure 14 shows the fuel price trends with inflationary pressures as measured by the consumer price index.

Figure 12: Evolution of the Price of Petrol in Nigeria, 1978-2013 (N/Litre)

Source: NNPC
Government intervention in retailing through administrative fixing of price and retail margins has exacerbated the demand-supply imbalance in the retail market. This has eliminated competition at the retail end of the market. It is widely recognized that numerous independent retailers recoup their investment quickly through illegal sales of fuel at parallel market prices. This may partly account for the large number of retailers in the sector in recent years. They thrive and recoup most of their investment during fuel shortages.

2.6 Fact 6: Fuel Subsidy Payment Has Risen Sharply in Recent Years

Fuel subsidy has been an important part of the energy policy of successive governments since the early 1970s. However, the level of subsidy which has varied across product types has been a dominant economic and political theme since. There is no consensus on the appropriate definition of what is subsidy or on how to deal with it in an efficient way in terms of its resource allocation implications. Tables 2 and 3 present the available data on fuel subsidy between 2006 and 2011. There have been some controversies on the actual fuel subsidy payments in Nigeria. For
example, though the 2011 budget made provision for N245 billion (US$1.5 billion) subsidy payments for petrol, actual payment escalated to an unprecedented N2.19 trillion (US$13.6 billion), after the payments of arrears of N457 billion (US$ 2.8 billion) in 2012, according to the Federal Ministry of Finance. The House of Representatives, on the other hand, found that actual payment was N2.5 trillion (US$15.5 billion), higher than the figures quoted by the Ministry of Finance. It is a widely held view that the Petroleum Support Fund, which is the source of subsidy payments, has been much abused over the years. It has been a major source of rent seeking and corruption on a grand scale. Nigeria’s record on corruption and governance, especially as relates to the petroleum sector, is poor.17

Figure 14: Trend in Petroleum Product Prices in Nigeria, 1995-2013

Note: CPI is Consumer Price Index, PMS is Premium Motor Spirit, HHK is Household Kerosene.
Fuel subsidy payments, which have risen sharply in recent years, remain contentious because of the rent-seeking nature and corruption associated with lack of transparency in the payments. Corruption has been a major factor in the escalating subsidy payments. The uncompleted investigation of the House of Representatives on verification of subsidy payment and the forensic audit by the Ministry of Finance have exposed the depth of rent-seeking and sharp practices in subsidy payments over the years. For example, while NNPC claimed that 60 million litres per day of petrol was consumed in 2012, the House of Representatives ad-hoc committee suggested 31 million litres. For kerosene, NNPC claimed 9 million litres as against 10 million litres by the committee. Other major factors in the escalation of subsidy payments are the international price of petroleum products and the Naira-Dollar exchange rates. The decline in the
value of the Naira has also exerted upward pressure on subsidy payment on petroleum products imports. The government, too, has been cautious in removing price subsidy on kerosene and petrol because of the political economy of fuel subsidy in an oil producing country where the dividend of democracy, the magnitude and financing of the subsidies have been a major source of controversy between federal and state governments and also between the citizens, civil society organizations and the government. The political economy dimension of the price and welfare impacts of fuel subsidy payment will remain topical in Nigeria, a major oil producing country with paradoxically very low human development indicators. Unfulfilled promises and poor implementation records of development policies by the government over the years, mistrust and lack of credibility of government pronouncements as well as abrupt and large increases in price changes have combined to make political feasibility of subsidy removal more challenging.

Table 3: Kerosene Imports and Subsidy Cost in Nigeria, 2006-2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Import of Kerosene (in billion litres)</th>
<th>Retail Price (N per litre)</th>
<th>Subsidy Cost (N billion)</th>
<th>Average subsidy cost (N per litre)</th>
<th>Expected Open Market Price (N per litre)</th>
<th>Average Crude Price (OPEC, N/litre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2.4</td>
<td>50</td>
<td>89</td>
<td>37.1</td>
<td>74.94</td>
<td>49.29</td>
</tr>
<tr>
<td>2007</td>
<td>2.0</td>
<td>50</td>
<td>90.8</td>
<td>45.4</td>
<td>88.44</td>
<td>54.69</td>
</tr>
<tr>
<td>2008*</td>
<td>2.5</td>
<td>50</td>
<td>90.4*</td>
<td>n.a</td>
<td>98.57</td>
<td>70.63</td>
</tr>
<tr>
<td>2009</td>
<td>1.9</td>
<td>50</td>
<td>n.a</td>
<td>n.a</td>
<td>91.39</td>
<td>57.11</td>
</tr>
<tr>
<td>2010</td>
<td>0.74</td>
<td>50</td>
<td>n.a</td>
<td>310+</td>
<td>111.67</td>
<td>73.07</td>
</tr>
<tr>
<td>2011</td>
<td>3.3</td>
<td>50</td>
<td>n.a</td>
<td>5.1</td>
<td>145.80</td>
<td>104.75</td>
</tr>
</tbody>
</table>

Notes: * The data is only for payments from January to July 2008.
+ The exact status of the subsidy on kerosene between 2009 and December 2011 is unclear given the directive that President Yar’Adua supposedly gave NNPC in August 2009 to stop the payment of kerosene subsidy because kerosene did not reach the intended beneficiaries at the official price. N310 billion was paid between August 2009 and December 2011.

Source: Adapted from Table 1 in Centre for Public Policy Alternatives (CPPA) and IISD Global Subsidies Initiative (2012).
Table 4: Premium Motor Spirit (Petrol) Product Pricing Template from PPPRA between July 2008 and February 2014

<table>
<thead>
<tr>
<th>Items (N/Litre)</th>
<th>July-2008</th>
<th>April-2010</th>
<th>Nov-12</th>
<th>Apr-13</th>
<th>Feb-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Cost + Freight</td>
<td>79.55</td>
<td>76</td>
<td>113.25</td>
<td>117.23</td>
<td>116.58</td>
</tr>
<tr>
<td>Freight</td>
<td>3.57</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trader's Margin</td>
<td></td>
<td></td>
<td>1.18</td>
<td>1.18</td>
<td>1.18</td>
</tr>
<tr>
<td>Lightering Expenses (SVH)</td>
<td>1.95</td>
<td>3</td>
<td>3.94</td>
<td>3.96</td>
<td>3.96</td>
</tr>
<tr>
<td>NPA</td>
<td>0.68</td>
<td>0</td>
<td>0.62</td>
<td>0.62</td>
<td>0.62</td>
</tr>
<tr>
<td>Financing</td>
<td>1.78</td>
<td>2.0</td>
<td>1.68</td>
<td>1.79</td>
<td>1.75</td>
</tr>
<tr>
<td>Jetty Depot Throughput</td>
<td>0.23</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Storage Charge</td>
<td>2.33</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total Distribution Margins</td>
<td>10.27</td>
<td>11</td>
<td>15.49</td>
<td>15.49</td>
<td>15.49</td>
</tr>
</tbody>
</table>

Source: PPPRA

In summing up the discussion in this section, it is important to state that the government grossly underrated the economic, financial, political, institutional, regulatory and technical constraints that confronted the achievement of its energy policy objectives. Clearly, achieving sustainable downstream petroleum development depends much on efficient sector performance underscored by well-implemented energy infrastructure investment and management supported by good institutional and regulatory frameworks.
Governments, throughout history, have intervened in the workings of the economy by assuming interventionist and command and control roles. It is not surprising, therefore, that when Nigeria became a major world net exporter of petroleum in the early 1970s the Federal Government took over both the upstream and downstream petroleum sector, the legal, regulatory, institutional and policy landscapes changed to reflect the new policy environment. In this section, we examine briefly the policy landscape and focus on the legal, regulatory and institutional frameworks and pricing policy in the downstream petroleum sector in recent decades.

3.1 The Legal, Regulatory and Institutional Frameworks

The significant restructuring and re-organization of the sector reflected the new sector environment in which the state became the dominant player, replacing the erstwhile dominant player, the private sector, made up of multinational oil companies. The legal and institutional frameworks had to reflect the change in policy direction from private sector-led but market-driven orientation to state-led but regulation-driven operational and planning modalities. Laws and regulations to support the new economic ideology of state ownership and price as well as entry control were put in place. Price regulation and subsidy payment were the major policy instruments for achieving the key policy objective of
providing inexpensive and ‘affordable’ petroleum products (petrol, kerosene and diesel) to every household and business enterprise throughout the country. However, after very high social and economic costs of the poor performance of public sector monopoly of much of the downstream operations, sector reform and deregulation have become more acceptable in recent years. There have also been pressures on the government to reform and deregulate the sector since the Structural Adjustment Programme in 1986. Even ardent supporters of regulation now agree to the liberalization of the sector.

The downstream petroleum sector was one of the commanding heights of the economy which the state took control over. Government ownership and control of the downstream petroleum sector required new legal and institutional framework. More importantly, it became obvious that state ownership and control of the sector implied less reliance on market forces. Uniform product pricing was institutionalized by the Petroleum (Uniform Prices of Petroleum Products) Order of 1973. The Petroleum Equalization Fund was established in 1975 by Decree 9 and amended by Decree 35 of 1989 to support the elimination of locational differences in official product pricing. Since that year, government has fixed the margin for petroleum marketers, thereby precluding them from engaging in price competition. Instead of fostering investment and industry development, these institutions and government policy impeded robust development of the sector until more recent times, especially when partial deregulation of the sector became more visible. Investment in depot and retail outlets have risen sharply in recent years, induced partly by fuel subsidy payment and shortages that bring enormous rent to the owners of these enterprises. If the DPR and PPPRA are to be evaluated based on fostering industry development and investment, ensuring safe and good product quality and service delivery, promoting equitable use of fuel, achieving the desired consumption levels of fuel energy, and promoting least cost import of fuel, enforcing the rules by DPR and the PPPRA has been below optimal over the years. The legal system has also exacerbated the challenges faced in the sector because of delays in judicial cases.

The Ministry of Petroleum, NNOC, NNPC and its subsidiaries, PPMC, and NNPC Retail, DPR, PPPRA, are the various government
agencies in the sector. However, there are other non-governmental institutions that affect performance in the sector. These include, NLC, suppliers, distributors and importers, (the major marketers and independent marketers and dealers); tanker owners (National Association of Road Transport Owners – NARTO) and drivers (NUPEENG), and PENGASSAN. The effectiveness of government policy in the sector depends substantially on the behaviour of these institutions. Overall, the sector performance outcomes depend on the strategic interactions between these diverse institutions. Equally important is the role of good governance, adequate institutional capacity and management of the numerous government institutions in this important sector. The record has been unimpressive in terms of production, investment, profitability, governance, accountability, regulatory outcomes and quality of service, in terms of efficient delivery of petroleum products to end users.

Four fundamental questions are important as we look beyond the current economic reality: (i) What is the capacity and capability of existing institutions to perform their functions creditably? (ii) What is required to facilitate the emergence of sound and robust legal, regulatory and institutional frameworks to support the emergence of Nigeria as the hub of petroleum production and export in ECOWAS and Africa? (iii) What types of institutions are necessary for the structural transformation of the sector to make it the hub of petroleum production and export in ECOWAS and Africa? (iv) How do you acquire them?

Addressing these questions appropriately will go a long way to achieve the objective of an efficient downstream petroleum sector and making Nigeria the hub of petroleum production and export across the value chains in ECOWAS and Africa. Notably, achieving this objective is essential to Nigeria being among the top 20 economies in the world by 2020, since the sector is the key to its sustainable growth and development. Robust legal, regulatory and institutional frameworks coupled with political stability are essential for minimizing high sector risks and attracting adequate long-term finance and sector competitiveness that is required to drive the sector transformation that will make the desired goal of an efficient downstream petroleum sector technically, financially and economically feasible and achievable.
3.2 Pricing Policy in the Regulated Fuel Market

Petroleum product pricing remains a major policy instrument in the pursuit of multi-dimensional and often conflicting policy objectives in both developing and developed countries. Achieving these objectives which encompass economic (resource allocation) efficiency, fiscal stability, equity, energy poverty alleviation, energy conservation, climate change and sustainable development have posed significant challenges for policy makers. The peculiar nature of petroleum energy in terms of being an intermediate product further complicates pricing policy design and implementation, especially in the low income developing countries. In general, domestic socio-political and economic environment coupled with global energy market developments, environmental and climate change concerns and strategic considerations have been the key determinants of domestic energy pricing in all countries. Nigeria is no exception to the interplay of domestic and global issues in shaping the domestic pricing of petroleum products.

Therefore, it is not surprising that since Nigeria became a major world net exporter of petroleum, political, social and economic motivations have underscored energy pricing policy objectives. First is the provision of inexpensive and ‘affordable’ petroleum products to all consumers in the economy. To achieve this objective, domestic prices of petroleum products have been administratively determined and set substantially below the market price. Second is uniform petroleum product pricing throughout the country. The elimination of locational difference as a factor in pricing was for regional equity reasons. Since the government intervened in the downstream petroleum industry and became the dominant player in 1973, uniform and below-market pricing strategies have been used as a mechanism for spreading the ‘oil cake’ to all citizens and business enterprises. The policy instrument for achieving the price objectives was price regulation and subsidizing the consumption of petroleum products. Price regulation and the accompanying price subsidy insulated domestic products markets and the Nigerian economy from the significant adverse impact of the highly volatile world oil market prices of the past four decades.

In most oil producing countries, all or some petroleum
products prices are not market-determined as domestic prices are fixed by the government, although there are significant variations in the differentials between the officially-determined domestic prices and the market price (international price/opportunity cost). Also, subsidizing some or all petroleum products has been commonly used by many governments in both developed and developing countries for a variety of reasons. However, the resource allocation efficiency cost, budgetary and environmental consequences of the subsidization of product prices have been the subject of much discussion in the literature (IEA, 2011; Bacon et al., 2006; Baig et al., 2007; Arzel del Granado et al., 2010). The pricing of petroleum products (derivatives of crude petroleum, a non-renewable natural resource, crude petroleum) below market price remains a contentious issue in many major oil exporting developing countries.

Subsidizing petroleum products has been on the front burner of public debate in Nigeria in recent times. The recent controversy about the huge and fraud-prone kerosene subsidy payment claims despite kerosene being sold at more than double the official prices to the intended beneficiaries of such payments has brought the issue to the fore of public discussion. Notably, except for a few urban areas, finding subsidized petroleum products to buy at official prices remain a mirage as products are largely sold to consumers at far higher prices than the regulated official prices (Ozo-Eson, 2013). Kerosene illustrates this mirage most vividly. The general public believe that the bulk of the subsidy payments are not only exaggerated but go to a small group that controls the import and retail end of the market. The escalating subsidy payments and associated corruption and fraud in claims from the Petroleum Support Fund (PSF) against the background of fiscal and macroeconomic stability have been one of the main economic arguments for eliminating subsidy payments. Overall, the developments in the downstream petroleum sector strongly suggest that the government grossly underrated the economic, financial, political, institutional, regulatory and technical constraints confronting the achievement of the energy pricing objectives driven by market regulation and subsidized pricing.

Domestic petroleum product prices have been under government control since 1973 when the government took over
product pricing from the private oil companies. Since that year, government has fixed the margin for petroleum marketers, thereby precluding them from engaging in price competition. Cost plus pricing has been the basis of the administratively determined ex-refinery product prices. Ex-refinery gate prices are largely determined by the transfer price of NNPC crude oil allocation. Indeed, this form of government intervention in the market has negated the efficiency of price mechanism. According to most of the retailers, the government-determined profit margin on fuel has been inadequate to cover the financial cost of industry operations, thereby discouraging expansion in marketing facilities. The government seldom increases its marketing and distribution margins, and when it does so only after long lags, it is usually at a level far less than required to maintain a reasonable rate of return on investment in the industry. It is widely recognized that numerous independent retailers recoup their investment quickly through illegal sales of fuel at parallel market prices during fairly frequent fuel market disequilibria. This may partly account for the numerous retailers who have constructed new stations despite the difficult conditions under which those who operate legally experience. Government intervention in retailing through administrative fixing of price and retail margins has exacerbated the demand supply imbalance in the retail market.

Government intervention through regulation distorted the fuel market in two main respects. First, is through the administratively determined oil prices. From the producer side, the price was grossly inadequate to sustain profitable investment. The use of prices as an important instrument in correcting the disequilibria in the fuel market and to enhance the much-needed improvement in economic efficiency of the industry is glaringly absent. NNPC is rarely allowed to raise prices to offset rising costs as the need arises. It has been a contentious issue whether fuel is cheap in Nigeria or not. The available data suggest cheap fuel at the pump stations. All refined products are tradable, which suggests from the economic viewpoint that domestic prices should be related to international prices. The impact of regulated and low domestic prices for fuel in retarding private sector participation in the refining is well known. The supply crisis would persist until domestic prices
guarantee a good profit margin for investors given Nigeria’s significant economic, political and security risks.

### 3.3 The Regional and Global Pricing Perspectives

The regional and international benchmarking of Nigeria’s petroleum products pricing is shown in Figures 14 to 16 and Table 5. Among OPEC countries, retail product prices are relatively low. Iran, Angola and Ecuador have higher prices than Nigeria. In the ECOWAS region, Nigeria has the lowest prices for petrol. The high level of products smuggling from Nigeria to other countries in the region reflects the price differential between Nigeria and the countries in the region. Furthermore, Nigeria belongs to the high subsidy category in global classification of subsidy payments in 2013. The price of a litre of petrol was US$0.62 per litre in Nigeria while Norway, also a major oil producer and exporter, charged US $2.54 per litre.

![Gasoline Prices in OPEC Countries (2012)](image)

Figure 14: Gasoline Prices in OPEC Countries, 2012

Source: OPEC Annual Statistical Bulletin 2013
Figure 15: PMS Prices in West African Countries, 2012
Source: Okigbo and Enekebe, 2012

Figure 16: Gasoline Price for selected Countries, 2012
Source: Adopted from Ering and Akpan, 2012.
Table 5: Global Prices of Petrol, 2012/2013

<table>
<thead>
<tr>
<th>Country</th>
<th>Price of petrol per Litre (US Cents)</th>
<th>Price of diesel per Litre (US Cents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>62</td>
<td>109</td>
</tr>
<tr>
<td>Venezuela</td>
<td>2.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Libya</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Algeria</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>23</td>
<td>6.7</td>
</tr>
<tr>
<td>Kuwait</td>
<td>33</td>
<td>20</td>
</tr>
<tr>
<td>Iran</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAE</td>
<td>33</td>
<td>64</td>
</tr>
<tr>
<td>Egypt</td>
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<tr>
<td>Indonesia</td>
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<td>Ecuador</td>
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<td></td>
</tr>
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<td>59</td>
</tr>
<tr>
<td>Angola</td>
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<td>42</td>
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<tr>
<td>Mexico</td>
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<td>85</td>
</tr>
<tr>
<td>India</td>
<td></td>
<td>86</td>
</tr>
<tr>
<td>Tunisia</td>
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<td>69</td>
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<td>Ghana</td>
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<tr>
<td>United States</td>
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<td></td>
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<td>Gabon</td>
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<td>91</td>
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<tr>
<td>Niger</td>
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<td>112</td>
</tr>
<tr>
<td>Chad</td>
<td>95</td>
<td>116</td>
</tr>
<tr>
<td>Nigeria</td>
<td>62</td>
<td>109</td>
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<tr>
<td>Togo</td>
<td>116</td>
<td></td>
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<tr>
<td>Benin</td>
<td>124</td>
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<tr>
<td>South Africa</td>
<td>138</td>
<td>142</td>
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<tr>
<td>Cameroon</td>
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<td>Kenya</td>
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<td>UK</td>
<td>217</td>
<td>227</td>
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<tr>
<td>Norway</td>
<td>253</td>
<td>235</td>
</tr>
</tbody>
</table>

Source: GIZ International Fuel Prices for 2012/2013, retrieved from www.giz.de
3.4 Subsidy Debate: Matters Arising

As a final point, and in a country where fuel pricing is such a sensitive political matter, with diverse opinions, in dealing with the pricing policy challenge, there is a need to include some key issues missing in the current pricing debate. We highlight four of these issues to help clarify aspects of the debate and, more importantly, to help strengthen the case for a more robust petroleum products pricing policy design and implementation. The design of a pricing policy for petroleum products should include the following:

1. The non-renewable nature of petroleum as an irreplaceable asset means that the burning of a barrel of oil today is an irreversible process. Consequently, its pricing should differ from other products that do not have the same characteristic;
2. The role of incentives in reversing the inefficient supply and use of a scarce non-renewable energy resource is an important factor in the crisis in the sector;
3. The neglect of intergenerational equity in the current use of oil should be noted; and
4. Neglect of air pollution and climate change perspectives are issues germane to sustainable human development content of the debate.

In concluding discussion on this important issue, it is essential that the pricing policy that emerges must ensure the signalling effects of prices in ensuring adequate investment in the industry and that support consumers and producers to make efficient demand and supply decisions both in the short and long term. It must also factor in environmental and climate change issues in the design of the pricing policy.

It is true that fuel is a necessary condition for economic and social development. But also, a pertinent issue concerns the important question of how much fuel should be available, by whom and at what price? The issue of optimal level of fuel supply in an economy such as Nigeria must be viewed against the background of product prices and production as well as delivery cost conditions in the industry. It then logically follows that from both the supply- and demand-side perspective, a key issue relates
to the prices and, ultimately, the social and financial rate of return to investment in the sector. The prevalence of a regime of price controls which kept prices far below market clearing levels, contributed substantially in ensuring paralysing supply shortages and sharp deterioration in service quality. The poor financial returns to investment associated with low product prices is a factor in the persistent supply shortages. People respond to incentives, which may be positive or negative. The major function of an incentive system in the economy is to provide economic agents with measures of the costs and benefits they face in order to influence their choice or behaviour. When policy changes the incentive structure, it will alter the behaviour of the choice maker because of both the direct and indirect effects of such incentives.

A major issue concerns the identification and management of the economic effects of the removal of the price subsidy on petrol. These effects are in two dimensions – microeconomic and macroeconomic.

The microeconomic challenge derives from how to manage the negative consumer welfare effects of the higher prices since:

- The price of many goods and services will skyrocket, propelled by transport costs; and
- The higher fuel prices will lead to a reduction in real purchasing power of households and, ultimately, a reduction in total consumption as households reshuffle their expenditure pattern to cope with the negative effects of a higher real energy price.

The ultimate impact is a reduction in consumer welfare. Conventionally, the microeconomic challenge is alleviated by compensatory social targeting/poverty alleviation packages needed to improve consumer welfare after the price increase. However, the good news is that the more rational use of energy products will be socially beneficial from the environmental and climate change perspectives. Going greener and cleaner environmentally, is predicated on reduction in fossil fuel.

The macroeconomic policy challenges derive from the macroeconomic consequences which are short- and long-term in nature. They include a short-term reduction in economic growth induced by higher energy prices, given the important role of
petroleum products as essential input in production process, and 
especially transportation. Other potential macroeconomic effects 
include reduced consumption and production and higher 
inflationary pressures as costs increase in short-term response to 
the removal of the subsidy.

Three factors will determine the magnitude of inflationary 
impact and overall inflation effect that will be induced by higher 
energy prices.

1. The degree of cost pass-through from oil to other costs in 
the economy which is dependent on the linkages between 
oil products and other sectors in the economy. In Nigeria, 
the evidence suggests a quick cost pass-through to product 
prices, e.g., transport, informal sector prices and food prices.

2. The substitution possibilities between oil products and other 
factor inputs used in the technology for producing goods 
and services in the economy. The more flexible the production 
process is in input combination (that is the greater the 
substitution possibilities), the easier it is for the economy 
to absorb the shock. The pervasive nature of old technologies 
of industrial production in Nigeria suggests lower 
substitution possibilities which imply higher adjustment 
costs when the price of petrol rises. Investment in critical 
infrastructure backed up by appropriate monetary policy will 
pay great dividends for the economy in the near term.

3. The fiscal response to subsidy removal. A fiscal response 
that is pro-economic growth and political stability is the most 
desirable for economic and social stability.

Coping with the macroeconomic shock from a dramatic 
increase in energy prices in the economy must be factored into 
the analysis of the size of the price change, the sequencing of the 
price change and its timing. Nevertheless, the long-term economic 
benefit from the fuel subsidy removal will more than compensate 
for the short-term macroeconomic adjustment costs if the right 
economic management strategy is pursued. Efficient management 
of the economic effects of the subsidy removal will establish a 
new era of trust and cordiality between the government and the 
governed, which is essential for political sustainability.

Finally, there is a need to examine critically the current PPPRA
pricing template. The current structure of petroleum products pricing in Nigeria based on the current PPPRA pricing template has several problems and in the process allows the transfer of inefficiencies in the petroleum product markets to be passed by importers and marketers to the government and consumers. First, the template is not only administratively determined but, more importantly, it is financial rather than economic (that reflects opportunity costs of resource use) in content. Second, the price template precludes competition among fuel importers and distributors along the supply chain since they are guaranteed a fixed margin on their investment. Furthermore, there are some elements in the template, such as financing, that are subject to inflation. The freight rate used in the template is much higher than what is charged in neighbouring West African countries.

It has been suggested that the process of granting the license needs to be more transparent with a view to ensuring competition. An auctioning of import licenses will make the process of granting the license to be more transparent and ensure competition. It will also provide the most efficient way to reduce rent seeking and corruption in the importation of petroleum products.

Nevertheless, the long-term economic benefit from the fuel subsidy removal will more than compensate for the short-term macroeconomic adjustment costs if the right economic management strategy is pursued. Efficient management of the economic effects of the subsidy removal will establish a new era of trust and cordiality between the government and governed, and this is essential for political sustainability.

3.5 Distributional Consequences on the Population of Subsidy Payments

The distributional consequences of the subsidy removal must be considered in the context of the following considerations: low income households, artisans and other self-employed people and the unemployed who are more likely to bear a greater share of the burden and find it tougher to adjust to the higher price regime than other groups in society. To meet this challenge, political and social acceptability of the policy change demand that adequate attention be paid to the mitigation of the social impact on the
poor. Other important factors that will determine the likelihood of success of the fuel subsidy removal policy change include:

- The degree of political and economic polarization;
- The timing of the policy change; and
- The credibility of the government based on past history of policy changes and outcomes.

Concerns that distributive issues may overwhelm efficiency criteria in policy design are a challenge that policy makers regularly face. The extent to which the identified groups that may bear disproportionately the burden of adjustment are made to be at least as well off after the policy change as before it through a variety of direct or indirect compensating scheme is key to political feasibility of the policy change. How to proceed and where to go from the current unsustainable energy sector performance highlighted by product shortages and low petrol prices is a key policy challenge for the Jonathan-led administration. Identifying the most vulnerable groups and developing a robust compensatory mechanism around the outcome of the PSIA study is essential for overcoming this challenge. However, the important role of wide-ranging political support from the Governors, the National and State Assemblies and the citizens is essential for such crucial policy change to succeed in a democratic setting. Good economy needs to be backed by good politics and credible communication.

3.6 The Political Economy of the Downstream Petroleum Sector in Nigeria

It is important to note that deregulation of the downstream sector, including price decontrol, will result in losers and gainers. Given the effect of fuel and transport in the consumption basket of households (the majority of Nigerians live on less than US$2 a day), the combination of rising fuel and food prices pose significant policy dilemma. The real income effect of the price shocks must be compensated for if this constituency is to agree to deregulation that allows for price decontrol. The differential effects of the deregulation on different stakeholders suggest the challenges involved in implementing appropriate reform policy in the sector. Reducing the vulnerability of the economy on producers and
consumers, especially the low income households, is imperative if Nigeria is to be among the top 20 economies in the world in the next quarter century. This is where political economy comes in. The reform must compensate the losers in one way or the other so as not to serve as barriers to reform in the sector. In fact, that has been the problem of political control over the oil sector since the discovery of oil in Nigeria. Recent developments concerning the fuel subsidy saga of 2011-2012 and the current controversy on kerosene and alleged missing funds suggest the scope of the rent being appropriated by people with political access to power in Nigeria. Deregulation of the downstream petroleum sector will bring higher petroleum products' prices as price decontrol at least in the short run. The higher prices that will emerge as market prices reach import parity price will certainly be a burden on poor households. But the reform associated with deregulation also presents an opportunity to stimulate domestic production and distribution of products and also correct the deep-seated problems that have characterized the sector for the past four decades.

Of the many crises that have buffeted the country during this period, the consensus is that fuel scarcity, which has become perennial, has proved to be one of the most contentious and paradoxical. It remains a vexed issue among the general public. The persistence of the same problem suggests that we need a better understanding of the critical factors behind the disequilibrium in the fuel market. Clearly, oversimplified solutions based on a narrow view of the problem (that downplays the economic determinants) would not suffice to deal effectively with these perennial problems. The social benefits of the current approach in which political and other considerations predominate over economic considerations in dealing with fuel crisis remain hard to identify while the magnitude of the social costs continue to escalate. Sustainable oil and gas use demands that energy prices should be focused on its comparative efficiency role. Domestic prices must be linked to international prices. In addition, product prices should help consumers and producers to make efficient and environmentally responsive energy choices.

Undoubtedly, it is important to identify some myths about energy in Nigeria. Four of these, which are sufficiently illustrative
of the depth of misunderstanding of fundamental issues underpinning the crises in the energy sector, will be discussed in this section.

Myth 1: Market prices do not matter in solving the crisis in the fuel market.
Myth 2: Petroleum products must be inexpensive because Nigeria is a major oil exporting country.
Myth 3: Change in product prices is inflationary and these nominal product prices must not change.
Myth 4: Government must build new refineries and fix existing ones to solve the fuel market disequilibrium.

3.7 The Simple Economics of Regulation and Deregulation: For What Purpose and Outcomes?

With the advent of oil and Nigeria earning billions of dollars of foreign exchange from its extraction, the government leveraged on the enormous resource inflow to take over what it called ‘the commanding heights of the economy’. The downstream petroleum sector was one of the commanding heights of the economy which the state took control over. However, with the persistent economic and technical inefficiencies manifested in frequent market disequilibria in the sector over the years, the effectiveness and efficiency of government regulation and control have been challenged by policy makers and analysts. Most observers, and even government officials, realized that the government could not fully take over the role of the market in the sector. More importantly, it became obvious that the context of the political economy of Nigeria, state ownership and control of the sector which implied less reliance on market forces constituted a serious drag on economic growth and development.

Arguably and ever since, downstream petroleum sector performance has been one of the most contentious issues in Nigeria since we became a leading global producer and exporter of crude oil in the early 1970s. The industry has absorbed tens of billions of dollars of public funds in the past four decades but with no perceptible improvement in the supply fundamentals of the
industry. The sector has been characterized by numerous economic, technical and administrative inefficiencies with serious economic and social impacts. The persistent failure of the sector to deliver adequate and reliable supply of petroleum products to end users across the country has questioned the overarching role and control of the government in the sector through its inadequately funded and politically compromised agents such as NNPC, PPMC, and PPPRA to deliver an efficient and sustainable downstream oil in the country and the region. The entitlement syndrome associated with cheap domestic oil as part of our national cake because Nigeria is an oil producing country has exacerbated the problems of the sector. The attempt to eliminate the inefficiencies in the sector provided the arguments for fundamental reforms in the sector anchored on privatization and deregulation.

We need to ask the right questions and also provide the right answers to the issue of regulation and deregulation given recent developments in the sector, as highlighted by the ongoing debate on kerosene subsidy payments and related issues. The California deregulation experience in the electricity market and the financial crisis of 2008 have put some question marks on deregulation initiatives in some countries. What has been the nature of the deregulation in the sector? What were the objectives of the reform process? What have regulators to regulate and what are they not to regulate? How effective has the deregulation reform effort been? What are the outcomes? Have they matched the outcomes? What have been the challenges to deregulation reform in the sector? The answers to these questions are fairly predictable. Notwithstanding this, however, available evidence shows the outcomes of deregulation reform effort in the past decade and a half have yielded results and have hardly changed both the perception and reality of a failed sector underscored by failed institutions. The poor outcomes have been derivatives of both policy and implementation failures.

The lack of much progress in the sector has also been due to not having a broad constituency for reform, given that major reforms in the sector built on entitlement and patronage syndromes would generate significant resistance to reform by the affected rent-seeking special interest groups and their agents as well as powerful labour unions at industry and national levels.
The deregulation that brought about sharp increases in the prices of petroleum products brought about a coalition of interests that opposed the move. Deregulation also threatened the interest of some influential stakeholders (the infamous cabals) in the sector. The lobby against the process of deregulation and privatization has slowed down the sector reform process significantly. The explosion of subsidy payments to over N1 trillion for fuel imports in 2011, and the fuel price escalation in early 2012, as well as the attendant public protest, allowed a coalition of alliances and negative impressions spread by special interest groups, which have not only swayed public opinion but also dampened the political will for far-reaching reforms in the sector as the 2015 elections draw near. These factors have essentially put on the back burner progress in reforming the sector. The National Assembly has failed to pass a Competition Law that should protect the interest of consumers for the past decade and a half, probably in deference to powerful lobbies.

Governments throughout history have deemed it fit to intervene in the workings of the economy, assuming roles that enhance at one end of the interventionist command and control to laissez-faire underpinned by unregulated market forces at the other extreme. However, the consensus has been that the state’s role in providing the legal and institutional frameworks for markets to support and advance economic growth and development is indisputable. The rules of the game for markets to function properly depend on the state and its capacity to enforce these rules to prevent or limit the arbitrary actions and excesses of the markets, especially against consumers. There is some controversy on what the state should and not do. There is also debate on how the state should do what it should do?

For some industries, the case for regulation is compelling. Regulation in the utility sector (network systems characterized by economies of scale) has become conventional wisdom. The objectives should be to foster market competition and growth, induce technological innovation and investment. Regulation, when well designed and carefully implemented, results in beneficial market outcomes such as market competition, innovation and prevention of abuse of monopoly power that enhances social well-being and sustainable human development.
A well designed incentive and compatible regulatory system provides a level playing field for all key stakeholders, including firms and investors in the industry or sector. In defining the proper and efficient rules of the game, regulation becomes a vital tool for beneficial market and social outcomes. Ultimately, the institutional capacity and efficiency as well as the extent of independence of the regulatory agencies from political pressures to execute its functions impartially will determine their ability to provide checks and balances that are required to protect both consumer and producer interests. The incentive mechanism embedded in the regulatory framework should encourage efficiency and technological innovations and ultimately impact both the market and social outcomes of regulation. On the other hand, if market regulation is poorly designed and implemented, the social and economic consequences could be severe, including exploitation of consumers through monopolistic exploitation, artificial shortages of products leading to profiteering, loss of government revenues, large cost for firms, heavy smuggling, corruption and market speculation and uncertainty. While no one-size-fits-all formula is available for sound regulatory agencies, strong institutional foundations with accountable and transparent rules of the game are essential to limit powerful private interests from hijacking the market as can be seen in the downstream petroleum sector in Nigeria. It is important, therefore, to re-examine the regulatory institutions in the sector and redefine the scope of their agenda. It should serve as a broker and facilitator of information between the sector, other sectors, the government and the rest of the world. It should be an anchor for public-private partnership in the downstream petroleum sector. It should be sufficiently creative to garner and maintain the confidence of stakeholders in the sector, particularly firms and consumers. A regulatory framework that will foster a coherent strategy for sustained development in the sector is essential for rapid economic growth and development.

3.8 Transiting to a More Competitive Fuel Market: Elements of a Policy Agenda

What basic principles should guide the introduction and operation
of a more competitive fuel market that guarantees an uninterrupted supply? Can market forces provide a reliable mechanism for efficient allocation of energy resources in Nigeria given the peculiarities of the society? What should be the sequencing option for fuel market enterprises with soft budget constraints and government interference in sector activities and enterprise management functions that encourage gross inefficiency in production, distorted demand patterns and investment choices, induced endemic and expensive delays and cost overruns that encourage widespread corruption in infrastructure construction and equipment and material purchases, and minimize the market responsiveness of the sector to changing demand and supply conditions through excessive regulations? An important additional factor concerns institutional failures. Eliminating these policy distortions is important for a faster transition to a more competitive fuel market.

It is now widely accepted that institutional strengthening through the establishment and sustenance of meaningful legal, administrative, regulatory support systems, is a sine qua non for a more competitive market structure to emerge and be fully functional.

The second important but related issue concerns public private sector interface in the provision of fuel. This is particularly vital since the efficiency, productivity and reliability of provision of fuel impacts on the efficiency of domestic production and investment as well as the international competitiveness of the economy. Redefining public-private sector role in the provision of fuel has become an important, though controversial, policy issue in the search for a more viable downstream sector in Nigeria.

Key elements of this agenda in general terms include the following:

- The current ongoing process of liberalizing and deregulating the market should be pursued in a consistent and transparent manner. A market-oriented energy sector that allows prices to reflect demand and supply conditions is a sine qua non for restoring equilibrium to the market. A poorly functioning energy market dominated by the
government has been too expensive in terms of development.

- Incentives to induce supply competition must be provided with the ultimate objective of improving the quality and quantity of energy output as well as exerting downward pressures on the cost of energy services delivered at the end use.
- Establishment of active regulatory and related institutions to ensure that energy markets function with due cognisance of the interests of both consumers and producers should be pursued.
- Government should allow a level playing field for all market participants in the fuel market.
- Government should allow a level playing field in the energy market for all fuel types to correct the bias in the existing system, which fails to induce efficient inter-fuel substitution.
- The strengthening of regional petroleum energy infrastructure should be seen as an integral part of the development and reform of Nigeria’s energy sector. This implies the integration of the domestic market into a regional and Africa-wide energy framework.

The tasks implicit in this agenda are certainly daunting but they are not insurmountable. Yet, they are key elements in the strategy to attain and maintain sustainable energy and human development in Nigeria within the next generation. What lessons are to be learnt from the recent experience concerning reform, pricing and investment, ownership and control of these services, and other deregulation measures? What have been producer and consumer responses to the liberalization in the market? To what extent can ex-ante expectations about market liberalization be realized? Have all the constraints in the sector become more tractable?
3.9 Blueprint for a Sustainable Downstream Petroleum Industry in Nigeria – Strategic Options and Plan of Action for Transforming the Industry

Efficiency, productivity and reliability of supply of fuel impact on the efficiency of domestic production and investment, as well as the international competitiveness of the economy, including the population are at issue here.

Proposals

More specific proposals include the following:

1. A transition period of 18 months commencing from the second quarter of 2014.
2. Domestic price linked to the international price.
3. Elimination of price control completely by first quarter of 2015.
4. Quarterly automatic fuel price adjustment to reflect changing international prices and the exchange rate.
5. Full deregulation and privatization of the petroleum products market by 2015.
6. Open access to depots, pipelines, import terminals and other distribution facilities currently owned by the government.
7. Fuel import liberalization. The import system should be based on an auction system.
8. Strengthening the PPPRA to perform its price regulatory functions effectively.
9. Product prices to reflect road user charges, and environmental pollution.
10. Imposition of an oil import premium to reflect the security implication of fuel import dependence.
Conclusions

In the past four decades, the downstream petroleum sector has absorbed tens of billions of dollars of public funds but with no perceptible improvement in the supply fundamentals or an effective and efficient way out of the numerous economic, technical and administrative inefficiencies that characterize this important sector in the economy. The persistent failure of the sector to deliver adequate and reliable supply of petroleum products to end users across the country has questioned the overarching role and control of the government to deliver an efficient and sustainable downstream oil in the country. The entitlement syndrome associated with cheap domestic oil as part of the national cake because Nigeria is an oil producing country has exacerbated the problems of the sector. Price deregulation, which in the last decade has brought about sharp increases in the prices of petroleum products, has brought about a coalition of interest groups opposed to further government moves in the direction of reform.

The lack of significant progress in the downstream petroleum industry has partly been due to lack of a broad constituency in support of pricing reform. The general perception is that major reforms in the sector have often been driven by entitlement and patronage syndromes. The rent-seeking special interest groups and their agents as well as powerful labour unions at industry and national levels have often combined implicitly to generate significant resistance to deregulation and overall liberalization of the sector. Deregulation has also threatened the interest of some
influential stakeholders (the famous cabals) in the sector. The explosion of subsidy payments to over N1 trillion for fuel imports in 2011, the fuel price escalation in early 2012, and the recent fuel subsidy scam have strengthened the coalition of alliances. Also, negative public opinions have helped to dampen the political will for far-reaching reforms in the sector, especially as the 2015 national elections draw near. Notably, the National Assembly has failed to pass a Competition Law that should protect the interest of consumers in the last decade and a half, possibly in deference to powerful lobbies.

Governments throughout history have deemed it fit to intervene in the workings of the economy by assuming interventionist roles. Price regulation has been and continues to be practised in many developing countries for a variety of reasons. However, the failures in regulatory frameworks and efficiency reasons have challenged the sustainability of non-market intervention by the government in energy markets. On the other hand, the laissez-faire approach underpinned by unregulated market forces face equity and income distribution challenges especially in an environment where rent-seeking and corruption thrive and the majority of the population live below the poverty line. However, when the economy adopts the market system, the consensus is that the state’s role in providing the legal and institutional frameworks for markets to support and advance economic growth and development is indisputable. Therefore, designing and enforcing the rules of the game for petroleum products’ markets to function properly depend on the state and its capacity to prevent or limit arbitrary actions and excesses of the markets, especially against consumers.

Developing a robust and efficient petroleum products sector in Nigeria is beyond political economy consideration. It also requires putting in place appropriate legal and incentive-compatible regulatory policy reforms and frameworks that will induce market participants to adopt more efficient investment, production, distribution, and consumption practices. It will involve changing the rules of the game, as well as the laws and regulations to deliver improved sector outcomes. Ultimately, achieving a sustainable downstream oil future is central to affording a more prosperous economic future for all Nigerians, irrespective
of their status. This should be the overarching goal for all stakeholders.

While acknowledging that several factors are at work in the poor performance of petroleum products market, this paper argues that the answer to the poor performance of petroleum products market lies largely in the poor choices of the government, acting simultaneously as owner, producer, consumer, manager, policy maker and regulator. Unpacking these various roles and allowing the most efficient agents to assume these roles is fundamental to eliminating the contradictions in the industry and economy. Clearly, policy choices largely driven by politics to the neglect of fundamental economic principles are often to the disadvantage of majority of the population. Populist and poorly timed policy measures will not solve permanently the crisis in the industry or the economy or the polity.

In this study, we have sought to convey some key messages about the Nigerian downstream petroleum experience in recent times. First is that energy prices matter in solving the crisis in the fuel market. Second is that government provision of fuel has been and will continue to be a failure despite the recent effort at reversing the decay in the public-sector-dominated fuel market. Third, as long as the margin between the international prices of fuel is large, dual fuel market structure that allows smuggling and black market activities would remain active. Fourth is that a properly phased fuel market and import deregulation as well as a credible privatization programme in the downstream sub-sector are critical elements of a more competitive fuel market. Fifth, establishing and strengthening institutions, including the legal and regulatory institutions that will enhance efficiency, high productivity and transparency, are essential to ending the paradox in the industry. Finally, sustained economic growth, upon which improvement in the well-being of the population is anchored, is critically dependent on the incentive structure facing individual households as consumers of commodities and suppliers of labour; and business enterprises as producers and investors; and the state at the local, state and federal government levels. The system of incentives must be designed to encourage these key actors to engage more in wealth-creation than wealth-dissipation and consumption.
At this critical juncture, when the government, the legislature, labour leaders and other stakeholders are seeking effective solutions to the protracted crisis, facile solutions to these questions are politically tempting but fraught with serious problems as recent experience has shown. Yet for quite some time now, there has been a general predisposition to suggesting superficial and politically expedient solutions to the protracted fuel market crisis, often based on misinterpretation and fallacies about recent history and beliefs. On the contrary, the magnitude and scope of the problems involved in the crisis strongly suggest that well-reasoned responses to these questions are critical to the design of a viable energy policy framework and sustainable energy development strategy. However, the interplay of economic, social, political, strategic, legal and environmental factors in these questions suggest the complex nature of the challenges that would confront policy makers not only in eliminating Nigeria’s protracted energy crisis, but more importantly, in achieving the objective of adequate, assured and environmentally cleaner energy supply at minimum social cost. The primary objectives of this study are two-fold. First is to illuminate the processes at work in the crisis. Second is to propose a strategy for transiting from market chaos to stability that focuses on the requirements of achieving a sustainable energy future.

Two broad conclusions emerge from this study. One is that the Nigerian fuel market crisis is a classic case of how inappropriate incentive structure and institutional weakness result in poor economic choices and inefficient allocation of resources. The shortages and queues at petrol stations nation-wide are symptomatic of problems that are fundamentally socio-economic than technical. In other words, and contrary to some widely held views by the public, economic principles lie at the heart of the fuel crisis and its solutions. The other major conclusion suggests that petroleum products market restructuring and liberalization are fundamental to achieving the objective of assured and environmentally cleaner energy supply at minimum social cost in the future. Making the fuel market more responsive to changing demand and supply conditions through market restructuring and deregulation constitutes a key part of the transition from market chaos to stability. In any case, Nigeria cannot afford to be an
exception to the global trend towards market liberalization. All the same, the point must be made that, though prices matter, they are not sufficient to guarantee a stable and competitive fuel market in the Nigerian environment. Of fundamental importance to improving industry performance is the institutional framework required for a competitive market to thrive. This must be properly established and strengthened to ensure the much-required private capital in the sector. Entry and competition are critical elements of any liberalization and privatization of the downstream segment of the petroleum industry.

Finally, it must also be recognized that the speed and content of energy market restructuring and deregulation and other institutional changes required to eliminate the expensive fuel market disequilibrium are confronted by the combination of political economy considerations and inherited attitudes, gaps in legislation, and missing institutions. Exchange-rate-driven external shocks to the market are another source of constraint. The complexity of sustainable energy development facing multi-ethnic, multi-religious, largely impoverished society, of which the current fuel crisis is to all intents and purposes a symptom, derives from the fact that fiscal, economic (inter-fuel competition), social, environmental and political issues must be appropriately factored into the energy development equation. This suggests some diffidence in proposing solutions to the complex issues involved in the energy sector development in such a major oil exporting and highly populated but poor developing country.

Market restructuring and deregulation that ensure competition among market participants anchored on prices that reflect changing demand and supply conditions, with due recognition of environmental considerations, have important roles to play in eliminating Nigeria’s protracted fuel market crisis and ensuring a stable and competitive energy market.

Endnotes
1. Other OPEC countries flushed with huge oil revenues also did the same thing.
2. In marked contrast prior to this period, market-based pricing obtained before the government took over the sector.
3. In 2012, the domestic consumption of petroleum products was 270,000 barrels per day while the capacity of Nigeria's four refineries was 445,000 barrels a day (US Energy Information Administration, 2013).

4. There was no new investment in refineries and other ancillary supply facilities since 1989. Recent investment in storage and distribution facilities by the private sector followed the partial liberation of downstream petroleum.

5. A regular occurrence over the years is the perennial blame game between the government and the NNPC on the one hand; and oil marketers (both major and independent) on the other; and also between the consumers and the producers on the one hand and marketers on the other, as to the origins and causal factors in market disequilibria.

6. The rationale for the price increase, according to the government, was the need to totally deregulate the price of petroleum products and remove subsidy payments.

7. The government eliminated price control on diesel, jet fuel, residual fuel oil and LPG following price deregulation in these markets several years back.

8. Some N500 billion out of N800 billion realized from the sale of 25 billion litres of gasoline sold by NNPC was allocated to SURE-P between January 2012 and September 2013. The fund has been used for a variety of programmes spanning conditional cash transfer, women health support, road and rail rehabilitation and construction, urban mass transit support and graduate job empowerment programme. There has been some controversies concerning the transparency and accountability in the use of part of the Fund.

9. These are the National Union of Petroleum and Natural Gas Workers (NUPENG) and the Petroleum and Natural Gas Senior Staff Association of Nigeria (PENGASSAN).

10. The transparency and the economics of NNPC's reliance on crude oil swap arrangements with foreign companies for refined products has been the subject of controversy. Recently, NEITI, in the context of the billions missing from the Federation Account as alleged by the Central Bank, questioned the transparency of the crude oil swap transactions involved in government procurement of imported fuels for domestic use consequent on poor domestic refinery performance.
11. The House of Representatives Report in 2012 on the fuel subsidy scam provides a useful perspective on the debate on the opaqueness of oil sector management by the state, and corruption associated with subsidy payments, poor management and malfeasance in the sector.

12. In general, petroleum refineries in most Sub-Saharan African countries are poorly run.

13. Nigerian refineries are grossly inefficient by all standards. Bringing capacity utilization in Nigerian refineries closer to the international norm illustrated by about 92 per cent in the European Union plus Norway, 89.9 per cent in the US, 97.8 per cent in the U.K. and 94.8 per cent in Japan would require fundamental industry restructuring and rehabilitation.

14. Two judicial commissions of enquiry investigated and made recommendations on acute shortages of petroleum products in 1975 and 1992. In 1994 another (military) panel was set up to probe the operations of the state-owned oil monopoly, the Nigerian National Petroleum Corporation. These panels had no significant positive impact on the problems of the sector as the crisis in the fuel market persisted with oscillating intensity.

15. The petroleum products shortages, which though has been diminishing in frequency in recent years, can be explained by three major factors, namely: inadequate energy supply infrastructure and fuel import-dependence, associated fuel import planning and management failures, and large scale smuggling. Also important in recent times are the delays in subsidy payments to fuel importers due partly to the need to screen the high level of fraud in subsidy claims, as the recent fuel scam saga clearly demonstrates, and partly to fiscal constraints. The poor sector performance has made the energy policy objectives difficult and expensive to achieve in the past four decades.

16. For more theoretical discussion see Holstrom and Tirole (1989); Furubotn and Pejovich (1972); Ross, (1973); Jensen and Meckling, (1976).

17. Nigeria has consistently ranked very low on global indices on corruption, accountability and good governance. See World Bank and Transparency International (2012).

18. Location was a factor in market-based pricing that obtained before the government took over the sector in 1973.

19. Three major reasons for price subsidy are: energy poverty...
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alleviation, redistribution of oil income to different categories of consumers in the economy, and encouragement of the growth of energy consumption.

20. Only a small fraction of the population using kerosene ever get the fuel at the official price of N50 per litre. The unofficial price range from N100 to N120 per litre.

21. The deadweight loss due to controlled price below the market clearing price is quite significant (see Adenikinju, 1996).

22. This much emanates from the medley of information in the news media, official publications and enquiries, and independent sources of analysis.

References


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