

CHAPTER TWENTY-THREE

PRICING POLICY AND THE DEVELOPMENT OF THE PETROLEUM PRODUCTS MARKET

By

Simeon Odior and Rosemary N. Okoh

ABSTRACT

In this work, we examine the issue of pricing policy in the petroleum product sector in Nigeria. The experience over the years has been that of regulation by Government. The paper examines the situation critically, and concludes that the solution to the fundamental inefficiency in the petroleum product sector, which manifests in the forms of inappropriate pricing, scarcity of refined petroleum products, smuggling, product adulteration and a situation in which the existing refineries are not maintained on a regular basis, can only be rectified by a well-designed and implemented programme of deregulation.

1. INTRODUCTION

The petroleum and energy sector forms a large segment of every developed and underdeveloped economy. Its significance in the countries of the world varies according to the degree to which a country is an importer or an exporter of it. Because of the central importance of petroleum and energy in modern economic life, more and more nations have formulated national policies in recent times on energy and petroleum products. Pricing and competition in the petroleum and energy sector have been characterized by a high degree of government intervention, both at the federal and state levels. In Nigeria, for example, government intervention has been systematic and comprehensive, ranging from policies designed to stimulate production to policies that attempt to control output to support petroleum products prices. This is understandable, as the sector contributes over 90% of her foreign exchange earnings and between 55% and 70% of government revenue.

The crash of world oil prices in the early 1980s, had led to the emergence of economic crisis (that is the oil glut in the world market led to the decline in oil prices which in turn brought about the decline in the oil revenue available to the government). Since then, the goal of the Nigerian government had been to adopt appropriate pricing for petroleum products, in order to avoid hoarding, artificial scarcity, smuggling, diversion, low level investment and product adulteration of the essential commodity. Given the various economic problems that arose, from poor pricing and lack of competition in the sector, there was need to search for viable antidotes that could help ameliorate the problems currently plaguing the sector. It was this search that brought about the need to deregulate the sector - that is phasing out subsidies by the government, which will allow proper pricing and competition.

Phasing out of subsidies from state-owned enterprises (SOEs), which is an important component of a broader reform process in the public enterprise sector is one of the stipulated requirements of the Structural Adjustment Programme (SAP) adopted in 1986 (FRN, 1986, 1988). Deregulation, according to the analysis, will favour the petroleum products sector, thereby allowing for flexibility

in the pricing and competitive system and enhancing profit maximization and in the development of the petroleum products market.

The objectives of this paper are therefore to: (i) review the major issues concerning the pricing policy and competition of the petroleum products within the deregulation and privatization concepts, and options for their implementation in Nigeria, as well as, benefits derivable from the various options, (ii) review developments in the Nigerian petroleum refining industry which is a typical state-owned enterprise, with a view to identifying problems confronting it and suggesting the alternative options of privatization which will enable the sector to realize its objectives and, (iii) make suggestions to government as to what its role should be as far as pricing and competition in the petroleum product market are concerned.

2. THEORETICAL FRAMEWORK

In analyzing industrial markets, economists have found it helpful to utilize certain theoretical models. Among these are the model of perfect competition, perfect monopoly, and oligopoly (Okoh, 1999). The model of perfect competition envisages a market with a very large number of sellers and buyers, complete information, free entry and exit, no government regulation, product homogeneity and profit, maximization (Koutsoyiannis, 1989). Under these conditions, market price always equals marginal cost and in the long run just covers the average cost of production per unit, including a normal profit. It may well be that no market in the real world conforms to the model of perfect competition. At the polar end is the model of perfect monopoly, which involves a situation in which one seller controls the entire supply of a commodity and into which it is impossible for other sellers to enter. This market structure cannot fit into the pricing and the competition in the petroleum industry. And we cannot actually assess the Nigerian petroleum market as having pure oligopolistic characteristics (a market structure with few sellers and numerous buyers). Even the desirable standard of market behaviour which some proposed in the form of "effective competition" cannot be seen in the Nigerian petroleum product market.

Effective competition is a situation by which the degree of competition in an industry is judged by the actual effects on consumers as measured by price and quality of products and services (Okoh, 1999). As has been observed in other countries' petroleum products market, the essence of effective competition is rivalry between independently managed enterprises in the offering of a mixture of products, services, terms of sale, and prices to the public - a mixture which itself changes through time. The competitive process consists of a continual series of moves and countermoves by individual firms, each seeking to protect or improve its position in the competitive market against its rivals and thereby to enhance its earnings. An industry in which competition is effective will exhibit a number of behavioural characteristics:

- i. each firm will act and react independently.
- ii. the productive efficiency of each firm will approach the maximum obtainable,
- iii. the prices of products will sensitively reflect changes in costs and demand.
- iv. the rate of return on investment will tend towards a normal level which suffices to retain investment and to finance innovations.
- v. opportunities to make innovations, to reduce costs, to improve products, and to develop new products will be quickly seized, and
- vi. there will be active rivalry among sellers for the patronage of buyers (Okoh. 1999).

Two national product markets of Italy and Japan are good examples to illustrate vividly what happens to pricing and competition in the petroleum sector when government favours competition in a market characterized by a strong growth. Italy embarked upon a liberal economic policy after World War II. One primary objective was to create an oil industry capable of meeting domestic requirements through local refining. Most war-time economic controls were removed by 1951, after which petroleum refining and marketing were open to free competition. These liberal government policies, superimposed upon a booming market, were eminently successful. On the other hand, Japanese petroleum product prices sensitively reflected the rising abundance of supplies and the internal competition that developed after the Suez crisis of 1957.

One may summarize the salient developments in the Italian and the Japanese petroleum product markets in the 1960s to the early 70s as follows: prices to consumers declined, margins to retail dealers were maintained, returns to independent owners of outlets rose, and returns to integrated primary suppliers declined. Both Italian and Japanese consumers were undoubtedly enjoying the fruits of effective competition (Jocaby, 1974).

The Nigerian government established the Nigerian National Petroleum Corporation (NNPC) in 1977. One of the functions of NNPC is to oversee the pricing and marketing of petroleum products in Nigeria. It has long engaged in this objective with little or nothing to show for it. The activities of the NNPC and its subsidiaries have made the pricing and competition in the petroleum and energy sector ineffective. The inefficiency, which characterizes the operations of NNPC have persisted in the form of incessant petroleum products scarcity. The presence of government in the pricing and production processes of petroleum products in Nigeria makes the market imperfect and creates distortions in the market system.

2. PRIVATIZATION PROGRAMMES FOR REFINERIES IN NIGERIA

The essence of government privatization and commercialization is to encourage efficiency in the operation of the affected corporations and parastatals. With the introduction of the Structural Adjustment Programme (SAP) in Nigeria in 1986, the idea of privatizing some enterprises in a bid to reduce the huge fiscal deficits of the government gained prominence. Among the public sector enterprises, which are currently being contemplated for privatization are the Nigerian petroleum refineries under the NNPC. The NNPC, which is the nation's premium economic corporation itself, bears other costs like storage, refining, transportation and distribution of products, which are, subsidized by Government (Ogunlana et al. 1999).

Among the stipulated requirements of SAP is the phasing out of subsidies. The question of devising an appropriate price mechanism in Nigeria has been contentious over the years. And since the introduction of SAP the goal of government has been to adopt appropriate pricing for petroleum products (Adekunle, 2000). According to the recent announcement in Abuja by the NNPC Group Managing Director: Jackson Gaius Obaseki. "It had become very obvious that the Federal government could no longer subsidize petroleum products and the Government's decision to increase the pump price from N20 to M30 was taken in order to avoid the dark days of scarcity of petroleum products (Obaseki, 2000).

In practice, Nigeria's energy pricing policy has entailed occasional revision of petroleum product prices. The need for appropriate pricing of petroleum products call for deregulation and

privatization policy which will help to open up avenues for more appropriate pricing, as well as making competition in the market effective and smuggling less attractive. For example the price of a litre of petrol has moved from less than 20k per litre to N22 per litre or 2,200k per litre over the years 1986-2000 (see table I).

Table 1. Movement of petrol prices over the years

Years	1986	1987	1988	1989	1991	1993	1994	1998	2000
Price (₦) Litre	20K	39.5K	42K	60K	70K	N1.25	1411	1420	N22

It should be noted that, although NNPC has been solely responsible for the fixing of prices of petroleum products, there is still price discrimination in various filling stations. The official price is not followed and there are cases, where black marketers set their own prices. Privatisation of the NNPC should, help to reduce these sharp practices. The concept of privatization means divestment by the government of all, or part of its financial holdings in the designated enterprises (Obaji, 1999). And the reforms of NNPC and state - owned enterprises (SOEs) in Nigeria have thus focused on such critical aspects as financial and physical restructuring via divestiture with a market - oriented approach under the SAP adopted in 1986. The privatization targets for Phase 2, 1999-2000 was mainly for the big utilities because of their major impact on the other sectors of the economy, and to ensure rapid growth of the economy. The utilities are confronted by constantly changing technologies which, as state monopolies, they cannot afford to acquire in order to modernize their operations, reduce cost and provide quality services to their customers (Usman, 1999). The privatization exercise in this phase will involve the following enterprises;

- (a) National Electric Power Authority, NEPA
- (b) Nigerian Telecommunications, NITEL
- (c) Nigerian National Petroleum Corporation, NNPC (down stream)
- (d) Urban Water Supply.

The phasing programme outlined for NNPC refineries and other down stream operations in the Vision 2010 Sub-Committee on Privatization Report (Usman, 1999) was to involve:

- (a) privatizing after planned rehabilitation
- (b) adopting greater operational and financial autonomy and private sector management pending privatization.
- (c) privatizing through competitive bidding
- (d) pre qualified bidders having world class refinery management experience.
- (e) ownership or control to be limited to one refinery per company or consortium, in order to encourage competition.
- (f) privatizing the Nigerian Gas Company
- (g) privatizing the petrochemical plants
- (h) adopting a national oil and gas policy
- (i) developing regulations for fair and free competition
- (j) developing and enforcing environmental, health and safety rules and regulations.

Nigeria has four refineries, with the first and fourth refineries at Port - Harcourt, the Warri Refinery and Petrochemicals, and the Kaduna Refinery and Petrochemicals Companies respectively. The refineries have a total installed capacity of 445,000 barrels of crude oil per day. Through these refineries, the Federal Government has a monopoly of crude oil refining with the overall objective of meeting the domestic demand for petroleum products as well as exporting the excess to earn foreign exchange. The refineries were merely agents of the NNPC for crude oil processing. As a result, the government, through the NNPC, sponsors the "Turn Around Maintenance (TAM) and other major projects as well as pays the staff salaries and other emoluments (Ogunlana et al. 1999).

The observed development in recent years is that the refineries operate at a low level of capacity utilization. The situation became worse in 1996 and 1997 with refineries being completely shut down for a fairly long period. The consequence of this had been that the country has witnessed acute shortage of petroleum products. This has led to importation of petroleum products. In effect, the refineries have not been able to achieve the objectives, for which they were established, (Ogunlana et al. 1999). Now, let us look at the operations of the different refineries over the years.

The Kaduna Refinery and Petrochemical Company (KRPC) Ltd

The KRPC, commissioned in 1988, was designed to process both Nigerian and imported crude oil into different range of petroleum products. Its installed production capacity is 110,000 bpd. The major corporate objective of the KRPC Ltd. is to ensure continued product availability and efficient plant operation at minimum cost. As at June 1997, the average capacity utilization was 55 percent (Ogunlana et al. 1999). Currently, the refinery is under the Turn - Around Maintenance (TAM), which was started in May 1998. This TAM has been overdue or delayed for almost four years. And apart from the several fire outbreaks, the refinery has several other problems, which had resulted in its unsatisfactory performance. These include under funding which is the major cause of its operational problems in the last three years. The status of the assets was getting eroded due to lack of regular maintenance as a result of inadequate funds. The company is indebted to the tune of N 1.2 billion as at March 1998 (Ogunlana et al. 1999).

The management of the refinery supports the idea of privatizing the refinery on the grounds that it will lead to improved efficiency, provide opportunity for appropriate pricing of products and also ensure continuous product availability.

The Port Harcourt Refinery Company (PHRC)

The PHRC manages the first and the fourth Refineries. The first Refinery was built in 1965 with its capacity raised from 35,000 to 60,000 bpd in early 1970s. It was established to refine petroleum products to meet domestic demand. The (fourth Refinery was commissioned in 1988 with a capacity of 150,000 bpd. It was meant to refine products for both domestic need and export. The capacity utilization of the Refinery remained at the average of 60% in the last 8 years. In terms of maintenance, the last TAM was undertaken in 1994 (Ogunlana et al. 1999). In other words it is overdue for TAM, which should be under taken every 18 months or 2 years at most.

The survey reports also showed that the refineries have similar problems like the KPPC. And, Ahmed (1996) also suggested that the refineries should be separated from the ownership and running of pipelines and depots.

The Warri Refinery and Petrochemical Company (WRPC)

The WRPC, which had an initial installed capacity of 125,000 bpd was commissioned in 1978. The refinery's mission statement is "to efficiently and profitably process crude oil into petroleum products, manufacture and market specific petrochemical products through effective and efficient resources utilization while exploiting new business opportunities" It was essentially meant to produce to meet domestic need. Its capacity utilization rose from barely 21.2 percent in 1995 to 42.2 percent in 1996 and 63% in 1997. The marked improvement was attributable to the completion of the TAM in 1994 (Ogunlana et al. 1999). Inadequate finding in a state of limited operational flexibility due to numerous equipment problems arising from obsolescence and limited maintenance and repairs engenders the WRPC. The WRPC management would prefer total privatization of the company with an ownership structure that should include the NNPC as a corporate body, strategic buyers, staff, institutional investors and the general public. This, it was argued will enhance efficiency, guarantee regular product supply, provide sufficient capital to enhance operations and enhance government revenue through tax payable on profit.

4. CRITICAL ISSUES IN PRIVATIZING NIGERIAN REFINERIES

That the Nigerian refineries should be privatized in order to realize their initial objective is no longer in dispute. But there are critical issues that should be noted before implementing the policy. The issues are briefly highlighted below:

- (i) **Government Policy Implementation:** Even though government policy on privatization of public enterprises commenced in 1988, the petroleum refineries were excluded from the exercise. Instead the activities of the NNPC and its subsidiaries were to be commercialized (Ogunlana et al. 1999). Since government has shifted position, in 1996, the whole exercise should be completed without further delay.
- (ii) **Pricing Policy:** The other area of concern is the likely rise in prices of petroleum products and the consequence on the general price level. The risk takers in refinery activities should naturally set the prices as it is done in any deregulated market.
- (iii) **Ownership Structure:** Social and equity consideration remained one of the important issues, which made government to delay in the implementation of the policy. The general opinion seems to be that if refineries are privatized, few people could take over such enterprises to the disadvantage of the majority of the population. Government should participate in the shareholding.
- (iv) **Management Efficiency:** the argument in favour of privatization is based on the assumed efficiency of the private vis-It-vis the public enterprise and how the former is more responsive to market forces and signals (Ogunlana et al. 1999). The inefficiency of the public enterprises is often hinged on a number of factors. These problems will cease to exist if the refineries are privatized.
- (v) **Financing Options for Privatized Refineries:** The government has been solely responsible for the funding of the refineries to date. But if the refineries are privatized, the funding capital requirement of the privatized refineries can be through a combination of the paid up capital, loans and internally generated funds.

- (vi) **Technical know-how:** Petroleum processing is a high technology activity. In a competitive environment, process technology that can optimize the existing refinery configuration and new installations should be adopted. The adoption ofvariety of modern process technologies is currently absent in Nigeria and can be only be adopted when the need to maximize profit is imbibed. This is easier when refineries are privatized.

5 DEREGULATION AND ITS IMPLICATIONS

Deregulation could be "described as removal of subsidies, as well as removal of price control, allowing the forces of efficiency and healthy competition to determine prices or drive them to lowest possible level (Adekunle, 2000; Ojo, 1994). It also involves removal of all constraints to entry into the industry. The decision to remove subsidies from petroleum products is an important development in the history of the country. It is a policy measure, which cannot pass without opposing view because of its economic, political and social implications. According to Gaius Obaseki (2000), N11.4 billion was the subsidy for petroleum products for the first quarter of the year 2000, and government is no more prepared to subsidize petroleum products. And when the prices of petroleum products were increased, a number of people expressed strong objections to the idea on the grounds that it represented a substantial welfare loss on the part of consumers.

The issue of whether or not to adjust upwards the present absurdly low prices of petroleum products in Nigeria has been on the agenda of public debate before the adjustment in June 1, 2000. Some interest groups have insisted that correct pricing through adjustment upwards of products prices may be desirable as an economic proposition. But that it will have adverse effects on the lives of ordinary Nigerians. Some of the opponents of the scheme believe that under deregulation, enterprises created with public funds would be turned into the hands of a few ethnic or class - based individuals, which would further perpetuate the existing inequalities in the distribution of national assets and widen the gap between the rich and the deprived poor.

Some other strong antagonists of deregulation believe that the classical argument for having a subsidy relates to the need for accelerated development and to improve income distribution. In the case of Nigeria, most of the production activities of the economy are for the domestic market, thus undermining the competitiveness argument. The income distribution argument is however more relevant. To them, a government can use selective subsidies to redistribute income in favour of the lower income group, instead of leaving the corporations to the indigenous "bourgeoisies" who are the representatives of the big international capitalists. It is equally argued that deregulation of the petroleum products sector which may involve total withdrawal of subsidies can lead to a rise in prices, and can have a multiplier effect through rise in transportation cost, increase in manufacture cost, and create more scarcity and discrimination in prices.

In the face of these opposing views, it will be necessary to note that the way to rescue the Nigeria's oil industry from imminent collapse is to work toward eventual appropriate pricing of petroleum products. This will mean that the petroleum market should be deregulated. Once the petroleum market is deregulated, the forces of demand and supply will now determine how much a buyer will pay for the products. Thus for deregulation to be meaningful, to, the consuming public independent refineries should be permitted to be established in Nigeria.

To save the nation from incessant embarrassment of petroleum products scarcity, adulteration of the products, smuggling, diversion and wasteful consumption, there is therefore the

need for' total deregulation of the sector. And the fundamental steps for deregulation includes the following (NNPC, 1995).

- i Accelerated privatization of the refineries
- ii Deregulation of distribution networks particularly the retail outlets.
- iii Encourage effective competition through good policies.
- iv Develop commercially sensitive and, investment friendly environment.

It is pertinent at this juncture to examine briefly, the polar case of regulation, albeit briefly, in order to provide more justification of the need to deregulate the petroleum sector. Regulation is when the laws of market forces are not allowed to dictate the price system. Rather the prices are controlled by the government "or government agencies, as is the case of the prices of the petroleum products in Nigeria, through the NNPC. The major thrust of the economic reform measures in the SAP is the deregulation of prices of goods and services. At present, while prices in most other sectors have been deregulated, there is still regulation in the pricing of petroleum products. The current pump price of N22.00 per litre of premium motor spirit (P.M.S) is the result of a system of regulated pricing. Government through the NNPC sells PMS at a price relatively lower than the marketers' retail price. The difference is the gross margin allowed to marketers to cover their cost, overheads and transportation.

This implies that both the wholesale and the retail prices of petroleum products in Nigeria are regulated. On the contrary, with the deregulation of the foreign exchange market and significant decline in the value of naira, the cost of machinery spare and additives in the oil industry has risen by about 1000% as against 77% increase in petroleum products prices between 1987 and 1992 (Adekunle, 2000). At present, there are eight major marketers of petroleum products in Nigeria, and about 1490 independent marketers engaged retailing petroleum products at the outlets or fuel stations (NNPC, 1997). The major marketers include: -African petroleum, Agip, Elf, Mobil, National, Texaco, Total, Unipetrol. The major marketers are those that own over 100 outlets each while the independent marketers are those that own less than 100 outlets each. The problem arising from: NNPC and government controls of pricing and production processes of petroleum products may be summarized as follows:-

- a. there is gross inefficiency in operations and this has led to frequent scarcity of petroleum products and low capacity utilization.
- b. favouritism, nepotism and tribal regionalism.
- c. technological backwardness and lack of innovation.
- d. high rate of corruption.
- e. lack of maintenance of refineries. •
- f. indebtedness of NNPC

Low petroleum products pricing in Nigeria has led to some undesirable effects, which are summarized below:

- (i) smuggling of petroleum products to neighbouring countries
- (ii) hoarding by marketers and creating artificial scarcity.
- (iii) low level investment and expansion. The current low price levels have generally hampered the growth of the Nigeria oil industry.
- (iv) environmental and other hazards (see Akpojevwa, 2000).
- (v) diversion and wasteful consumption

(vi) product adulteration.

6 SUMMARY CONCLUSION AND POLICY RECOMMENDATIONS

The paper has attempted to analyse the pricing policy and production process decision making procedures and their effects on the development of the petroleum products market in Nigeria. It is noted that the absence of competition has created room for imperfections as well as distortions in the petroleum products market. It was also observed that deregulation and privatization will create effective competition in the petroleum industry. This will affect profits and the rate of return on investment and hence the flow of capital into alternative uses. If competition is effective, a higher profit level will result from rise in demand for petroleum products and a corresponding fall in their prices.

Although the nation is endowed with vast resources of oil and gas reserves, it is the challenge of the present generation of leaders and followers to harness the resources for the upliftment of our nation. Therefore petroleum products must be correctly priced

It is believed, however, that the implementation of deregulation and privatization policies should be prosecuted with caution in order to minimize the adverse effects they may have on the citizenry. But the issue of appropriate pricing and competition in the petroleum and energy sector is more of national economic thinking than that of a sentiment.

In the light of the above, a number of recommendations are made here. Firstly, the government must ensure that the regulatory environment and competition policies must be right as part of the process of privatization. The regulatory framework and environment must be such that they encourage maximum competition. Hence it is recommended that government should permit other entrepreneurs (foreign or domestic) to establish more refineries. This will increase supply of various petroleum products through effective competition, which will eventually depress prices *ceteris paribus*. In this case, deregulation will not of necessity lead to higher prices, but lower prices and hence higher welfare gains.

Secondly, the government should leave the management of the NNPC in the hands of the strategic partners who have expertise in production and marketing of petroleum products. This would, no doubt, enhance efficiency.

REFERENCES

- Adekunle, H. O. (2000), "Pricing and Marketing of Petroleum Products" Unpublished manuscript. Department of- Economics, Delta State University, Abraka.
- Ahmed, M.(1996), "Refining Operations in Nigeria: The Way Forward", Press Briefing PHRC Ltd., Port Harcourt.
- Akpojevwa, M. (2000), "Pricing and Marketing of Petroleum Products" Unpublished manuscript, Department of Economics; Delta State University, Abraka Federal Republic of Nigeria (1986), Structural Adjustment Programme For Nigeria, July 1986-June 1988, Lagos.
- Jacoby, N. H. (1974), *Multinational Oil. A Study in Industrial Dynamics*. Macmillian Publishing Co. New York.
- NNPC (1995), *The Fact of the Matter, Appropriate Pricing of Petroleum Products*, March 24.
- NNPC (1997), *Annual Statistical Bulletin*, January - December Vols. 36 & 39.
- Nigeria Petroleum News: "Crude Oil Prices and Stability", June, 1995 No. 12.
- Koutsoyiannis, (1989), *Modern Microeconomics*, London, ELBS second edition.
- Obaseki, J. G. (2000), "Increase in Petroleum Prices", *The Punch*, Friday, June 21, Pg. 1& 2.
- Obaji, U.O. (1999), "Analysis of the Nigerian Privatization Programme: 1988 - 1993: Lessons of Experience". *Bullion Publication of CBN*. Vol. 23, No. 3, July/September P. 41.
- Ogunlana, O. A. Obieke, K., Hogah, E.B. and Sanni, H (1999), "Privatization programme: A Case for Refineries in Nigeria" *Bullion of CBN*. Vol. 23, No. 3,
- Ojo, M. O. (1994), *The Economics of Control and Deregulation: The Nigeria case*. CBN. Occasional paper series No. 10, October, 31st.
- Okoh, R. N. (1999), "Collection of Works on the International Petroleum Industry". Unpublished manuscript, Delta State University, Abraka. Pp. 29 - 32. TCPC, (1993) Final Report. Vol. 1 (Main Report) Bureau of Public Enterprises (BPE), Federal Secretariat.
- Usman, S. (1999), "Planning and Phasing the Privatization of Public Enterprises in Nigeria. "The second Phase". *Bullion, CBN vol. 23 No.3 July/September*. Pp. 7.