

THE ROLE OF IMPORT-SUBSTITUTION INDUSTRIALIZATION POLICY IN ECONOMIC DEVELOPMENT IN NIGERIA

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ABSTRACT

The paper explores the role of import-substitution industrialization strategy on the Nigeria economy from 1970 to 2003. It reveals that as part of the attempt to eliminate deterioration in terms of trade, large fiscal deficits, low inflow of foreign capital, economic dependence and under-development, the Nigerian government pursued this policy. The results from estimated econometric models for Nigeria show no negative relationship between import-substitution industrialization strategy and growth in total factor productivity. Overvaluation of currency is also shown to be detrimental to total factor productivity growth. The study revealed that exchange rate and real imports are critical determinants of total factor productivity growth in Nigeria within the period under review. The paper concludes by suggesting the need for coordination of exchange rate and fiscal policies to achieve the objective of balance of payments viability through reduction in import demand to ensure that the positive effect of import reduction through duties may not be wiped out by the negative effect of overvalued exchange rate.

1. INTRODUCTION

Import-Substitution industrialization strategy has long been considered as a viable policy prescription for developing countries as one of the basis for catching-up with the advanced industrialized countries. This is understandable given the import dependency of most Third world countries, their chronic record of balance of payments deficit, severe external debt obligations (debt crisis) and the absence of any sustained favourable terms of trade in their trade relationship with the matured capitalist countries.

The drive towards import substitution industrialization strategy particularly in the 1960s, 1970s and even the 1980s reflects this belief. It was further stimulated by two theoretical perspectives, the Stolper-Samuelson theory and the Dependency theory. Stolper-Samuelson theory states that although free trade is better than autarky, a nation can still benefit from trade and derive increased economic welfare by imposing trade restriction. The dependency school of thought goes a step further. It argues that the international economy cannot be conceived in Adam Smith's laissez-faire model of international trade and economic development, which hinges on economic benefits of division of labour and equal trading partners, because the Western World's superior technology, superior economic, military and political power impose conditions of unequal exchange on Third World countries including African countries.

The Smithian theory of international trade implies that economic growth is maximized by regional specialization and the reduction of trade tariffs. With natural resources, climate and labour supplies unequally distributed between states, each should specialize its production around these "natural gift" to make international trade exchanges maximize productivity in certain raw materials, commodities and services. P. Baran (1957), Raul Prebisch (1959) and others such as Sunkel (1969), Frank (1969a, b), Cardoso (1972), Rodney (1972), Emmanuel (1972), Baran (1973), Dos Santos (1976), Cardoso and Faletto (1979), Bacha (1978), McGowan and Smith (1978), Sautter (1978), Palma (1978), Chilcote (1981) who advanced dependency theory, argued that the economic development of Western world rested on the expropriation of an economic surplus from Africa and other Third World countries.

Thus, the practical incarnations of the dependency theory policy prescription are a mixture of protectionism and

Keynesianism that became known as Import-Substitution industrialization strategy. Behind a tariff wall, with generous government subsidies, an active fiscal policy and a drop of central planning here and there, less developed countries could hope to lessen their dependency on the center and develop autonomously. Against this background, import substitution industrialization could be seen as an attempt to achieve self-reliance and develop local capacity to reduce dependency.

The objective of this chapter is to provide both theoretical and empirical evidence of the role of import-substitution industrialization in the promotion of economic growth using total factor productivity of manufacturing sector in Nigeria between 1981 and 2003 as an indicator.

The study is organized in five sections. Section I has been the introduction. In section two of this chapter we shall review the theoretical and empirical literature. Section three provides the analytical methodology and analysis of results. In section four we present concluding remarks on the role of import substitution industrialization strategy in economic development of Nigeria. The paper relies heavily on the contribution of Egwaikhide (1997) published in the Nigerian Journal of Economic and Social Studies and Nyong (2001). The present paper goes beyond the selective review of Egwaikhide by providing empirical evidence and using more recent data from 1970 to 2003 particularly in the context of linkage of the industrial sector to the rest of the Nigerian economy. It is not very clear whether the Nigerian economy has completely moved away from import substitution industrialization strategy given the fact that the manufacturing sector is still protected to some degree and complete liberalization of the sector is yet to be achieved. Elements of self-reliance is still evident in official government pronouncements on the manufacturing sector despite the new export-oriented industrialization policy embarked upon in 1988. The World Bank (1993) observed that the introduction of various levies and surcharges, together with the ad-hoc manner which the Tariff Review Board adjusted the tariff rates still provide some degree of protection to industry. Foreign exchange allocation tends to favour finished goods, an outcome which has resuscitated import dependence.

II CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

The industrial policy of a country may be inward-

looking, based on import-substitution industrialization (ISI) strategy or outward-looking, based on export promotion industrialization strategy. In import-substitution industrialization, the focus is on the production of consumer goods to substitute for imported goods. Given the existence of domestic demand, import substitution requires home replacement of these finished goods in most industries by importing components and engaging in the final assembling process, in the expectation of proceeding to develop from the top downwards through the ultimate production of intermediate goods and capital goods. This strategy of industrialization has the advantage of allowing for the home replacement of existing markets, and meeting a developing country's balance of payments requirements. Import substitution industrialization is protectionist oriented (Myrdal, 1956, Hirschman 1958, Chenery 1960).

Chenery had shown that for countries that adopt import substitution industrialization, the growth of industries based on

import substitution accounts for a large proportion of the total rise in industry. The basic ingredients for success in import substitution strategy is the existence or occurrence of systematic changes in supply conditions such as growth in capital stock per worker, increase in education and skills of all kinds, not changes in the composition of demand with rising income (Chenery, 1960). Tariff on industrial imports cannot cause the supplies of capital, human skills, and natural resources to change in a way that favours the substitution of domestic production for imports. Indeed there is no way this can happen. Replacement of imports by domestic production is no guarantee for cumulative growth. It is self-defeating to restrict imports at too early a stage and thereby foregoing the awakening and catalytic effects which import has on industrialization. According to Chenery (1960), import substitution strategy worsens a country's export performance because scarce financial and human resources are diverted from the export sector or concentrated in the import sector.

In Nigeria the industrialization policy adopted has been import substitution in the early years after independence. The industries that were established fall within either monopolistic or oligopolistic market structure. Ownership and control of industries in Nigeria were in the hands of foreigners. The Nigerian Enterprise Promotion Decree of 1971 attempted to address the domination of industries by foreigners as seen in the provisions of Schedule I and therefore paving the way for rapid indigenization in industry. The spatial distribution of industries show that most industries are concentrated in Lagos, Port Harcourt, Aba, Kano, Kaduna, Ibadan and Zaria (Adejogbe, 1980). Government policy measures had focused on domestic market protection, i.e. protection of infant industries.

In all cases of industrialization, a noticeable development in the economy is the change in the structure of production, the share of the industrial sector rises vis-à-vis that of the agricultural sector. Industrialization has both backward (input-provision) and forward linkages (output-utilization) to the rest of the economy. In backward linkage, any non-primary economic activity has the tendency of inducing attempts to supply through domestic production the inputs needed for that activity. In forward linkages, every activity that does not only cater for final demand but also intermediate demand will induce attempts to use its output as inputs in some new activities. Thus, a policy of industrialization must endeavour to encourage both backward and forward linkages/integration.

Nyong (2001) reveals that there is strong interaction between industrialization, exports and economic development. Sustained economic development requires a transformation of the structure of production that is consistent with the evolution of domestic demand and opportunities for international trade. This transformation usually result in substantial increase in the share of industrial exports and a shift way from dependence on primary commodity exports towards semi-manufactured and processed commodities as an important source of foreign

exchange earnings. Meier (1984) observed that considerable evidence exists to show that success in developing processed export is important to the industrialization process, and conversely import substitution will ultimately lead to a slowing down of the growth process.

An important contribution to the literature on import-substitution industrialization strategy was carried out by Egwaikhide. He noted that as part of the attempt to facilitate economic development, the Nigerian government pursued import-substitution industrialization strategy. In the tradition of Hirschman (1958), it was anticipated that import substitution development strategy would have substantial beneficial effects on the economy. Industrialization was equated with development in the country. He noted that open-handed policies were implemented to stimulate the growth of the industrial sector, with particular emphasis on manufacturing activities. He lamented, however, that despite the massive investment in the sector by the government, only very little backward and forward linkages were realized. He suggested that the dismal results was due to the fact that macroeconomic, sector-specific policies and tariff measures for industrial development were not only incoherently formulated, but also haphazardly implemented.

Several authors have argued persuasively that import substitution industrialization (ISI) exacerbated Nigeria's external dependence, since it relied on imported raw materials, foreign technology and even skilled manpower, some of which could have been provided locally. Onimode (1988) observed that probably owing to the generous incentives provided to industrialists (local and foreign investors), the manufacturing sector became increasingly dominated by multinational corporations (MNCs), which repatriated a substantial proportion of their earnings through transfer pricing and charges. As a result of these and other related results, Egwaikhide (1989) argued that Nigeria's import substitution strategy, protected by high tariff walls, has tended to disarticulate the economy internally and articulate it externally.

Stolper-Samuelson theory has argued in favour of import substitution trade policy maintaining that the resources currently used to generate foreign exchange earnings for imports could be employed to produce certain highly competitive imported goods. Thus, Stolper-Samuelson theory emphasizes savings in foreign exchange. Although, the cost of producing the import substitutes may be high at the initial stage, it is expected to fall in the long-run because the scarce foreign exchange thus saved could be used to import non-competitive goods such as raw materials, machinery and equipment that are strategic to national development.

Import substitution industrialization, which is a logical outgrowth of the dependency theory which has as the main exponents Singer, Myrdal (1956), Raul Prebisch (1959), Dos Santos (1970), Walter Rodney (1972), Cardoso (1973), Cardoso and Faletto (1979), Chile's Osvaldo Sunkel (1972) and Mexico's Andre Gunder Frank (1969a,b), the Egyptian Amir Samin (1972), Aghir Emmanuel (1972), and Palma (1978). It is based on the declining terms of trade thesis, that there is a secular tendency for the terms of trade for producers of primary commodities to fall relative to price of manufactures. Thus, if you are stuck in producing copper, oil, cotton, rubber, palm oil and palm kernel, banana or cocoa, the purchasing power of your exports will fall or stagnate, and so will your ability to import, invest and grow. Over time the producers of primary commodities will become relatively poorer.

The policy of import substitution was vigorously pursued by a number of Latin American countries after the Second World War notably Argentina, Mexico, Brazil, Chile, Columbia, Peru, Paraguay and Uruguay, supported in part by the UN Economic Commission for Latin America (ECLAC). Their experience, however, has shown that this strategy is not an adequate remedy for the problems of underdevelopment. Studies by Little, Scitovsky and Scott (1970), Bhagwati (1978) and Krueger (1978, 1980), for instance, have established that

the strategy of import-substitution industrialization (ISI) led to overvaluation of exchange rate, thereby worsening the current account balance of those countries that followed this strategy. The point was made that the policy created a demand for imported raw materials and intermediate inputs which, in most cases, precipitated a balance of payments crises.

Structuralism is part of the theory of dependency. It is not surprising that Latin American structuralists have argued that the pursuit of import substitution is one of the principal structural factors that could help to reduce the level of dependence of foreign goods and hence eliminate to some extent the persistent inflation in these countries (Fitzpatrick and Nixon, 1976). For them imported inflation is the logical outcome of economic dependence on foreign consumer goods and capital goods.

The motives for ISI in Nigeria is not different from those of Latin American countries, i.e., to reduce imports via increased reliance on goods manufactured domestically, to reduce balance of payments deficits, to generate more revenue to government through import duties. It is not surprising that several studies have been carried out on the impact of import substitution on the country's external balance. The general conclusion from such studies is that there is a positive relationship between import substitution and the import of raw materials and intermediate inputs (Egwaikhide 1997).

Previous studies by Osagie and Oyelabi (1974) provide interesting insights. The authors investigated the foreign exchange implication of ISI with particular reference to the manufacturing sector. Using the concept of domestic cost ratio (DCR), the net foreign exchange effect of import substitution on manufacturing activities was determined by subtracting the accounting costs of inputs plus the accounting value of repatriated payments to foreign-owned factors of production from the accounting value of output produced. They concluded that the pursuit of ISI in Nigeria has aggravated the foreign exchange crises, since the 27 manufacturing groups (the major users of net foreign exchange) studied showed an overall negative value-added when estimated at world prices. Closer examination of their quantitative results further revealed that industries with negative value-added at world prices were owned mainly by multinational corporations that prefer not only imported raw materials and intermediate inputs, but also labour-saving techniques of production.

Similarly Ekuerhare (1978), using a related concept, the units social profit (USP) criterion, for broad-woven material in the textiles industry, found the discrepancy between value added at domestic and world prices of this aspect of textile production to be negative. This suggests that the manufacturing activities studied were net users, rather than net savers of foreign exchange. According to Egwaikhide "One point of importance emanating from these findings is that Nigeria's import substituting industries have little or no internal dynamism for self-sustaining growth because of their heavy reliance on imported raw materials, spare parts and machinery for production. Thus, the sector has its domestic linkage effect reduced simply because of the high import content required for its production (Edozien, 1968). This trend provided only little evidence that capitalist industrialization, a la Warren (1973), is taking place in Third world countries like Nigeria" (p. 185).

Egwaikhide noted that although Nigeria has advanced relatively in the production of consumer goods, very little has been achieved in the capital goods sub-sector, an outcome generally associated with the paradigm of ISI. This probably explains the acceleration of capital goods importation as their relatively share in total import fluctuated between 23 percent and 43 percent between 1950 and 1994. The logical implication of this is that there exist little intra-linkage in the manufacturing sector. If this trend continues it is definitely a cause for concern for Nigeria. However, Onimode (1988, 146-148) has dismissed such worries insisting that for the industrial sector to be self-sustaining, priority should be given

to the development of the capital goods sub-sector since it is crucial to the long run growth of the economy. But the question of great concern to policy makers is how long will the industrial/manufacturing sector be protected? When will the country begin to reap the benefits of over protected industrial sector with their heavy reliance on imported inputs?

In the review of the literature Egwaikhide indicated some plausible but inadequate argument that have been advanced as to why import substituting industries has not fare well in conserving foreign exchange. He cited the problem of high protective tariff. He noted that extensive empirical investigations by Oyelabi (1972), Oyejide (1975), Ekuerhare (1978, 1983) and the Policy Analysis Department (PAD) of the Federal Ministry of Industries in 1989, have shown that the effective rates of protection were very high. The studies found that tariff rates were biased against those industries that could generate foreign exchange earnings. This, perhaps, validates Aboyade's (1968) submission that sector-specific and macroeconomic policies for industrial promotion were poorly formulated and haphazardly implemented.

A previous study by Oyelabi (1972) has shown that there exists a direct relationship between high tariff rates and the movement of domestic prices in the Nigerian economy. There is little doubt that domestic inflation adversely affects the exchange rate and, therefore, the balance of payments. The author did not find any relationship between effective rates of protection and productivity, and between Nigerianization and the intensive use of labour in the manufacturing industry. Empirical estimates of the cost of protecting the sugar manufacturing industry between 1965 and 1971, based on Crammate and Dardi's partial equilibrium model, were explored by Olayemi and Abaelu (1974). The findings of Olayemi and Abaelu demonstrated high absolute and relative costs of production. The two researchers, however, suggested a reduction in sugar imports, together with moderate costs of protection to stimulate the growth of the sugar industry. It can be concluded that industrial policies promote inefficiency and low factor productivity.

A major consequence of high protective rates is the unequal exchange it tends to generate between industry and agriculture. Little, Scitovsky and Scott (1970) have argued that unrealistic exchange rates have often created unfavourable terms of trade for agriculture. This has combined with other factors to depress agricultural output. Egwaikhide observed that in Nigeria, this development may have been partly responsible for the low production of food crops that led to the massive importation of foodstuff in the 1970s and which depleted the accumulated foreign exchange. In his Ph.D thesis, Egwaikhide (1989), argued that this was a major source of balance of payments difficulties in Nigeria.

Egwaikhide also observed that foreign investors often take advantage of the generous incentives provided by the government to compete in protected domestic markets. According to Egwaikhide, the "manufacturing sector increasingly became dominated by transnational corporations with their sophisticated technology, whose primary motive was not to address the macro problems of the economy, but to amass wealth and repatriate profits. This resulted in decapitalization, a major source of the chronic balance of payments difficulties in Nigeria (Ohiorhenuan, 1983; Onimode, 1982; Onimode et al., 1983)" (p. 186).

Employment of Labour and Technology Transfer

Another area in which ISI is considered important is in labour employment and transfer of technology. According to Egwaikhide (1997) the Lewisian two-sector model assumes that the supply of labour in the traditional economy is almost infinitely elastic (Lewis, 1954). Labour could migrate from this sector to the industrial sector without a fall in output of agriculture, since labour productivity was very low and even close to zero. The underlying economic logic of this model,

which was developed for Third world countries, is that the overall growth of the economy is directly influenced by industrial development. Unfortunately, the agricultural sector has been the main source of growth in a number of developing countries; and Helleiner (1966) and Aboyade (1969) can easily be identified as critiques of the Lewisian model with respect to Nigeria.

It is well known that one of the motives of import substitution industrialization was to address the three problems of unemployment, technology transfer and technical progress. Employment generation by import substituting industries has been considered to be generally unimpressive in Nigeria because the growth of employment in the manufacturing industry has lagged behind the growth of output. For instance, between 1963 and 1972, the annual growth rate of manufacturing output was about 16 per cent, while total employment in the sector grew at a mean annual rate of approximately 11 per cent. The application of capital-intensive techniques of production was identified as a major cause of the poor employment record. Empirical evidence by Onimode (1982) indicated that capital-labour ratios for Nigerian manufacturing industries in 1962 exceeded those of Japan in the same year. This is not surprising, as the sector is dominated by multinational corporations that generally favour techniques of production that increase capital. Another undesirable consequence is that exotic technology may have displaced local technology rooted in the culture of the people. The dominance of manufacturing, oil and mining subsectors of the economy by the multinational corporations suggests that frequent changes in technology (technological innovations) may have led to a dependence on imported technology. That reliance on imported technology is inimical to economic development of LDCs was noted by Bruton (1989). He argued that reliance on imported technology slows down the learning process and hardly created the capacity for indigenous technological development.

There are few studies on the transfer of technology to Nigeria by multinational corporations probably because of the patchy data available in this important subject. Although, increased attention has been devoted to technology transfer in recent years, adequate statistics for valid arguments and firm conclusions are still not available. Onimode's (1978) study on the oil industry showed that the transnational corporations often charge heavily for the little technology transferred to Nigeria, while the transfer was essentially between the parent companies overseas and the subsidiary firms in the country. According to Onimode, the phenomenon of transfer pricing (a major source of resource leakage) was practiced a great deal in the process. A similar conclusion had earlier been reached by Turner (1977) on Nigeria. There is little doubt that the import substituting industries spend very little financial resources on research and development (R&D), as a majority of the firms merely assemble imported products. This tendency partly explains why technology transfer and import substitution in Nigerian are said to be nothing more than myths.

A deeper insight into technology transfer to Nigeria in the oil sector was provided by Turner (1977). She indicated that the local technical and material inputs into the Port Harcourt and Warri refineries, for instance, were negligible; and that the equipment and machinery employed in these refineries were not fabricated locally, but imported. She stated explicitly that:

"State ownership does not translate automatically into national control of the process of selecting and transferring technology. Nor does government control guarantee that citizens get the appropriate technology on the least expensive terms and in such a way as to encourage local technological development. (ibid., 244) (Egwaikhide p 188 quoting from Turner 1977).

Turner also noted that most Nigerian employees in top management positions are nothing more than glorified clerks "who occupy posh offices". Local research and development were discouraged. Thus, even though the oil sector was an important sector in the Nigerian economy it could only employ about 29,000 workers in 1977 and this was less than 0.1 per cent of the labour force in Nigeria in that year (Iwayemi, 1981).

Macroeconomic Policies and Industrial Growth

Several policy measures and programmes have been implemented in Nigeria since independence in 1960 to promote manufacturing growth. Before independence the incentives given to manufacturing enterprises were implemented under (i) Aid to Pioneer Industries Ordinance of 1952, (ii) the Income Tax Amendment Ordinance of 1952, (iii) the Industrial Development (Import Duty Relief) Ordinance of 1957, (iv) the Industrial Development (income tax relief) Ordinance of 1958, (v) the Customs Duties (Dumped and Subsidies Goods) Ordinance of 1958. For instance, under the Aid to Pioneer Industries Ordinance, "pioneer companies" were granted full exemption from company income tax for a period of 5 years. Depreciation allowances were also granted under the Income Tax (Amendment) Ordinances. As seen in Asiodu (1967), Phillips (1968), Oyelabi (1972), Ekundare (1972), Teriba and Kayode (1977) and Uduebo (1985).

According to Stolper-Samuelson theory, benefits from imposition of tariffs include improvement in balance of payments, increase in government revenue, protection of local enterprises until they mature through replacement of imported commodities by locally produced commodities. In the context of Nigeria, Oyelabi (1972) and Ekuere (1980), argued that the restrictive trade policy of the 1950s and 1960s were meant to correct Nigeria's balance of payments deficits. Oyejide (1975), Okigbo (1983) emphasized the revenue generating aspect. However, it seems that consumer goods industries were more protected than intermediate and capital goods industries even up to early 1980s. Egwaikhide (1997) observed that "effective rates of protection have not favoured the capital goods subsector, a factor possibly responsible for the gross underdevelopment of the intermediate and capital goods manufacturing subsector that constitutes the engine of industrial expansion in the long run".

Asiodu (1967), and Phillips (1967, 1968) conducted a critical examination of the effects of fiscal incentives on industrial growth focusing on Nigeria's Company Income Tax, Import Duty Relief (IDR) and the Approved User Scheme (AUS). Phillips noted that there was substantial loss of revenue arising from the implementation of the policies. He found that the approved user scheme was too cumbersome due to bureaucratic red tapism, and bottlenecks. Far more startling is the revelation that "tax incentives had no remarkable effects on the growth of industries, since about 60 of the manufacturing enterprises that benefited from these measures would still have established without the measures" (Egwaikhide 1997; see also Phillips 1968). The findings by Phillips stand in contrast to those of Kilby (1969) who attributed rapid industrialization in other parts of the world to government policies. The difference between the Nigerian experience and elsewhere, according to previous studies, is that fiscal incentives granted to industries, together with macroeconomic policies, were formulated with little or no internal logic, as they were not sufficiently discriminatory and selective (Aboyade 1968: 294). The failure of Nigeria's import-substitution industrialization strategy could thus be ascribed to the absence of internal dynamism for the anticipated self-sustained growth and development.

The situation did not change much under military regimes of the 1970s and 1980s. According to Adejuge (1980), the industrial policies of any regime depends on the class character of the state and other socio-political pressures. He found that Nigeria's military administration did not have any well defined macroeconomic and industrial policies from

the various budget statements and national development plans. Although the military may be credited with promulgation of the Nigerian Enterprises Promotion Decree of 1972 and its Amendment in 1977, direct government involvement in industrial sector produced marginal benefits because it fostered not only corrupt practices but also gross inefficiencies. It focused more on grandiose industrial projects like the Ajaokuta Steel Rolling Mill with huge investment in social overheads capital with little consideration for the economy's absorptive capacity and the linkages. This resulted in structural distortions as revealed in the positive correlation between importation of manufactured consumer goods and the level of import substitution in Nigeria.

The inability to evolve appropriate industrial policies in the 1970 has been said to be due to lack of discipline and commitment on the government officers and planners. According to Okigbo (1983), unbalanced structure of import substitution which favoured consumer goods industries resulted in various policies adopted by the Federal Government. Most of the machinery and equipment required in consumer goods industries were, and are still, imported. Because of the weak link between consumer and producer goods industries, Eleazu (1984) suggested the need for a rethink on the Nigeria's industrial policies for growth and development. This is consistent with the World Bank study of 1974 which indicated the virtual absence of industrial diversification in Nigeria. The study revealed that only about 30% of the value-added realized from large scale enterprises were retained locally because of "the colossal transfer of profit abroad". The repatriation of a large percentage of manufacturing value-added in the form of interest payments, profit and amortization is a derivative of the open-handed policies of foreign industrialists which had been detrimental to industrial growth and development in the country.

Jerome et al. (1995) attributed the factors impeding manufactured exports to past trade, exchange rate and industrial policies, poor infrastructural facilities such as electric power supply and telecommunication services coupled with a structurally weak manufacturing base.

Overall, it seems to be the case that the benefits of industrialization were rarely internalized because the structure of incentives were not sufficiently selective and discriminatory. It is not surprising that John Ohiorhenuan (1990) revealed that there was little linkage between agriculture and industry in Nigeria. The implication is that import substitution industrialization in Nigeria with high tariff walls, distorted efficient resource allocation and encouraged rent-seeking behaviour that were incompatible with rapid and sustained economic growth and development.

Government intervention in industry partly reflected in the establishment of commercial, merchant and development banks such as Nigerian Bank for Commerce and Industries (NBCI), and the Nigerian Industrial Development Bank (NIDB) made little impact. Direct government intervention in the form of the creation of public corporation in the exploration, production and marketing of oil, cement and fertilizer manufacturing, iron and steel projects, machine tools, etc, inhibited technology partly because of the lack of understanding by bureaucrats of the basic issues involved and partly because the technical design of turnkey projects were import-based (Adegboye 1976, Forrest 1982). By implications, policies should be focused on small and medium scale enterprise to maximize local resources particularly because the dominance of large scale foreign monopoly capital has not led to tangible technological development and structural transformation.

The World Bank (1978) and Robertson (1981) have pointed out that there is incompatibility between the structure of industrial incentives and National Development Plans. Consequently, Robertson suggested that industrial policies in Nigeria should be reviewed periodically to match the changing economic environment. The World Bank suggested that protective rates for industries that make intensive use of

local inputs be raised to promote national development objectives of rapid economic development and self-sufficiency.

With the collapse of the oil prices in 1981, Nigeria fragile economic base became evident as reflected in persistent and rising budget deficits, chronic balance of payments difficulties, rising external indebtedness as seen in debt burden indicator (external debt to total export ratio) and supply shortages. In 1984 several commodities were banned including rice, stockfish, wheat etc. Study by Laird and Noguez (1989) revealed that between 1982 and 1984 non-tariff barriers affected a total number of 100 items, while average nominal tariff rate (defined as ratio of revenue from import duties divided to total imports) between 1982-84 was estimated at 19 percent. This hampers manufacturing production.

It appears that the macroeconomic reform programme adopted within the context of structural adjustment programme (SAP) in the mid-1980s may have discouraged the transfer of technology to the industrial sector. The massive devaluation of the Naira in 1986 and the subsequent depreciation of the Naira raised the cost of imported goods, particularly capital goods (i.e machinery and equipment), which are important inputs of technology transfer. Therefore, it has been exceedingly difficult for industrialists to replace the existing machines and related equipment employed. Survey evidence by the World Bank revealed that most of the machinery and equipment used in the manufacturing sector were purchased in the 1970s (World Bank 1990). It is not surprising that the operations of the machines and equipment are characterized by frequent break downs "to which low capacity utilization is highly correlated".

In his study on economic development with unlimited supplies of labour Arthur Lewis (1966) have argued that although large industrial enterprises spend huge funds on equipment and machinery, they contribute very little to national income. Specifically, he found that the ratio of wages/salaries to value-added to be very low. This was closely related to the high cost of capital input employed. This may be indicative of the capital intensive nature of the manufacturing sector.

Perhaps far more important to the success of an import-substitution industrialization strategy is the index of total factor productivity growth (TFPG) in the manufacturing sector. Unfortunately empirical evidence on TFPG are recent and scanty in Nigeria. Two main studies may be identified. The first is the one by Olaloye (1985) who examined TFPG for the period 1962-1980 and the second by Chete and Adenikinju (1995, 1996) for the period 1962 to 1985. While Olaloye found that total factor productivity growth grew by 2 percent on average over the study period, Chete and Adenikinju indicated that TFPG experienced a negative growth rate of 0.057 percent. They found a low and positive correlation between TFPG and growth of exports, imports, and real exchange rate, and a negative correlation with black market premium and import duties). They suggested that overvalued exchange rate which engendered black market premium was detrimental to TFPG in manufacturing sector during the sample period. If one follows the results of Olaloye then increased investment in human capital, research and development through continued education, health care delivery system is crucial for raising and sustaining TFPG. However, policy measures to reverse the trend is necessary. Contradictory results by these studies call for more research to throw more light on the issue. The absence of further studies on TFPG was considered as an important lacuna in the import-substitution industrialization strategy. According to Egwaikhide (1997),

The contrasting results for the sector (manufacturing) make it imperative that further inquiry be undertaken, utilizing fairly sophisticated methods of analysis. Information

on the rate of productivity growth in the manufacturing sector is still scanty" (p. 198)

This constitutes the basis of this chapter on trade policy of import substitution industrialization. Strategy and its impact on economic development.

III ANALYTICAL METHODOLOGY

The model used is in line with Olaloye (1998), Chete and Adenikinju (1995). Our model takes the form:

$$\text{LnTFPG}_t = b_0 + b_1 T + u_{1t} \quad 1$$

$$\text{LnTFPG}_t = c_0 + c_1 \text{LnEXPO}_t + c_2 \text{LnIMPO}_t + c_3 \text{LnRER}_t + c_4 \text{LnDUTY}_t + u_{2t} \quad 2$$

$$\text{LnIMPO}_t = a_0 + a_1 \text{LnGDP}_t + a_2 \text{LnRER}_t + a_3 \text{LnDUTY}_t + a_4 \text{LnEXPO}_{t-1} + u_{3t} \quad 3$$

$$\frac{d\text{TFPG}}{dT} > 0, \quad \frac{d\text{TFPG}}{\text{EXPO}} > 0, \quad \frac{d\text{TFPG}}{\text{EXPO}} > 0, \quad \frac{d\text{TFPG}}{\text{IMPO}} > 0,$$

$$\frac{d\text{TFPG}}{DUTY} < 0, \quad \frac{d\text{TFPG}}{DUTY} < 0, \quad \frac{d\text{IMPO}}{d\text{GDP}} > 0, \quad \frac{d\text{IMPO}}{d\text{RER}} < 0, \quad \frac{d\text{IMPO}}{d\text{EXPO}} > 0, \quad \frac{d\text{IMPO}}{d\text{MANU}} < 0.$$

Where T=time trend, EXPO= value of exports divided by Implicit GDP deflator, LnTFPG=log of total factor productivity growth. Total factor productivity growth is obtained by dividing total value-added in manufacturing by the sum of wages/salaries and consumption of fixed capital. The other variables are defined as follows: IMPO=value of imports divided by implicit GDP deflator, RER=real exchange rate (trade weighted) and DUTY= value of customs and excise duties divided by total imports, GDP=gross domestic product or income. u_{1t} , u_{2t} , u_{3t} are stochastic error terms with white noise properties. Equation 3.3 is the import demand function where the demand for import is a function of income (GDP), real exchange rate, duties paid on imports, and previous year

value of exports which captures foreign exchange constraint. In the import demand function all the variables are expected to be negative except the coefficient for GDP.

Positive changes in LnGDP and LnRER have positive effects upon imports and it can dampen the negative effect upon industrial expansion in terms of increasing scale of domestic manufacturing since manufacturing expansion depends on industrial expansion and import of raw materials.

The equations were estimated for the period 1981 to 2003. Ordinary least squares estimation method was used. Data were drawn largely from CBN Statistical Bulletin (various issues), CBN Annual Reports (various issues) Federal Office of Statistics The Nigerian Statistical Fact Sheets on Economic & Social Development (April 2004).

IV NEW EMPIRICAL RESULTS, INTERPRETATION AND ANALYSIS

Before presenting the results we provide trends in industrialization index (INDU) defined as the ratio of the value of agriculture production to GDP. If the index or INDU=20 % or less, the economy is regarded as industrialized. If more than 40 % it reflects underdevelopment. The results presented in Table 10.1 shows that during 1970 through 2003, the index of industrialization varied between 20.63% on the high side to 53.53 % on the low side. The results show that there was no year where index was less than the 20% mark. The mean distribution of the industrialization index stands at about 38.02% with a standard deviation of about 7.168. The result indicates low level of industrialization. Thus, inspite of the increasing openness of the economy as measured by the ratio of sum of export and imports to GDP, the level of industrialization in the country has been low even under export orientation within the context of the New Industrial policy of 1988. Structural transformation in the economy is indicated by decreasing ratio of agricultural production to gross domestic product. The results in Table 11.1 show virtual absence of any structural transformation as the economy is still dominated by the agricultural sector.

Table 1: Trends in Industrialization and Economic Growth

| YEAR | INDU | INDUSTRIAL PRODUCTION /GDP | Capacity Utilization Rate % | Real GDP growth % | Trade Openness |
|------|-------|----------------------------|-----------------------------|-------------------|----------------|
| 1970 | 41.28 | 13.76 | 70.1 | 25 | 19.6 |
| 1971 | 40.04 | 17.34 | 72.5 | 14.2 | 24.5 |
| 1972 | 38.27 | 19.94 | 73.1 | 3.4 | 22.8 |
| 1973 | 35.14 | 25.09 | 74.3 | 5.4 | 31.3 |
| 1974 | 31.83 | 35.24 | 75.5 | 11.2 | 39.8 |
| 1975 | 31.73 | 28.5 | 76.6 | -5.2 | 41.2 |
| 1976 | 29.12 | 32.27 | 77.4 | 9 | 42.1 |
| 1977 | 29.57 | 31.42 | 78.7 | 6 | 47.3 |
| 1978 | 30.48 | 33.33 | 72.9 | -5.8 | 43.3 |
| 1979 | 28.65 | 37.82 | 71.5 | 6.8 | 43.9 |
| 1980 | 20.63 | 45.57 | 70.1 | 4.2 | 48.6 |
| 1981 | 26.91 | 37.58 | 73.3 | -13.1 | 49.1 |
| 1982 | 30.84 | 33.33 | 63.6 | -0.2 | 38.7 |
| 1983 | 37.7 | 29.73 | 49.7 | -5.3 | 31.1 |
| 1984 | 49.4 | 27.78 | 43 | -4.8 | 27.8 |
| 1985 | 40.3 | 29.18 | 38.3 | 3.7 | 28.5 |
| 1986 | 42.8 | 26 | 38.8 | 2.5 | 37.6 |
| 1987 | 41.6 | 33.31 | 40.4 | -0.7 | 53.3 |
| 1988 | 41.5 | 30.83 | 42.4 | 9.9 | 45.2 |

| | | | | | |
|--------------------|--------|-------|--------|-------|-------|
| 1989 | 40.5 | 20 | 43.8 | 7.2 | 57.9 |
| 1990 | 39.6 | 19.3 | 40.3 | 8.2 | 72.2 |
| 1991 | 37.8 | 21.04 | 42 | 4.8 | 68.6 |
| 1992 | 38.5 | 21 | 38.1 | 2.9 | 82.7 |
| 1993 | 37.15 | 20.73 | 37.2 | 2.2 | 97.3 |
| 1994 | 38.7 | 20.03 | 30.4 | -0.6 | 82.5 |
| 1995 | 38.6 | 20.26 | 29.3 | 2.6 | 86.5 |
| 1996 | 39 | 21.23 | 32.5 | 3.4 | 75.6 |
| 1997 | 39.4 | 21.47 | 30.4 | 3.9 | 75.2 |
| 1998 | 40.4 | 20.53 | 32.4 | 2.3 | 57.46 |
| 1999 | 47.15 | 19.77 | 35.9 | 2.4 | 62.05 |
| 2000 | 48.99 | 21.44 | 36.1 | 5.4 | 62.42 |
| 2001 | 50.85 | 22.49 | 39.6 | 4.6 | 62.48 |
| 2002 | 53.53 | 20.89 | 44.3 | 3.5 | 60.86 |
| 2003 | 34.63 | 38.15 | 46.2 | 10.23 | 65.01 |
| Average | 38.017 | 26.36 | 51.785 | 3.977 | 52.48 |
| Standard deviation | 7.168 | 7.451 | 17.66 | 6.71 | 19.97 |

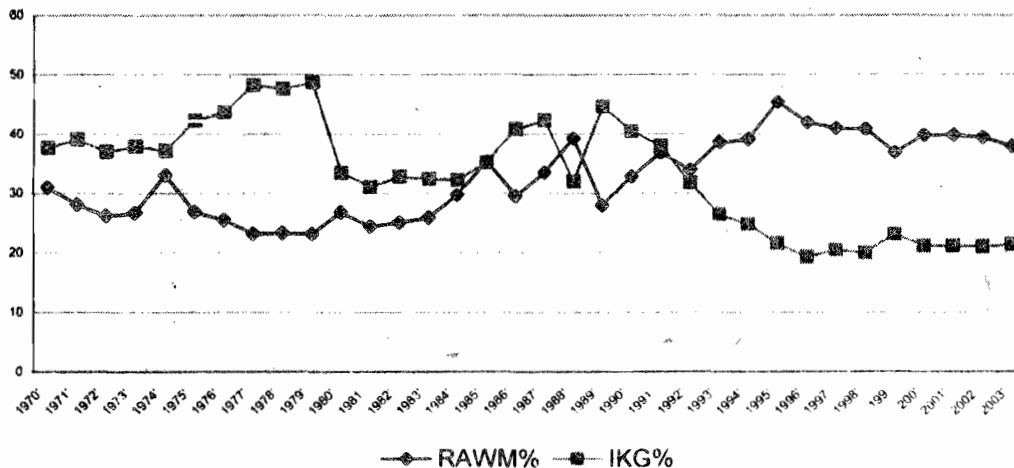
Table 2: Composition of Imports (1970-2003)
(Percentages)

| YEAR | Raw Material | Capital Goods | Consumer Goods |
|------|--------------|---------------|----------------|
| 1970 | 31 | 37.7 | 28.8 |
| 1971 | 28.1 | 39.1 | 31.4 |
| 1972 | 26.2 | 37 | 36 |
| 1973 | 26.7 | 38 | 34.6 |
| 1974 | 33 | 37.2 | 29.2 |
| 1975 | 26.9 | 42.3 | 30.5 |
| 1976 | 25.5 | 43.7 | 30.5 |
| 1977 | 23.2 | 48.2 | 28.5 |
| 1978 | 23.3 | 47.6 | 29 |
| 1979 | 23.1 | 48.6 | 28.2 |
| 1980 | 26.8 | 33.5 | 39.6 |
| 1981 | 24.4 | 31.1 | 44.4 |
| 1982 | 25.1 | 32.8 | 41.6 |
| 1983 | 25.9 | 32.4 | 41.6 |
| 1984 | 29.7 | 32.2 | 37 |
| 1985 | 35.3 | 35.2 | 29.3 |
| 1986 | 29.5 | 40.8 | 29.6 |
| 1987 | 33.5 | 42.4 | 24.1 |
| 1988 | 39.2 | 32 | 28.7 |
| 1989 | 27.9 | 44.7 | 27.3 |
| 1990 | 32.8 | 40.5 | 26.7 |
| 1991 | 36.8 | 38 | 24.8 |
| 1992 | 33.9 | 31.7 | 33.8 |
| 1993 | 38.6 | 26.4 | 34.9 |
| 1994 | 39.1 | 24.8 | 35.8 |
| 1995 | 45.3 | 21.5 | 33.1 |
| 1996 | 42 | 19.2 | 38.7 |
| 1997 | 41 | 20.4 | 37.5 |
| 1998 | 40.8 | 19.9 | 39 |
| 1999 | 36.80 | 23 | 40.00 |

| | | | |
|------|-------|------|-------|
| 2000 | 39.80 | 21.1 | 38.80 |
| 2001 | 39.80 | 21.1 | 38.80 |
| 2002 | 39.40 | 21 | 39.20 |
| 2003 | 37.87 | 21.3 | 40.50 |

Sources: Computed from CBN Statistical Bulletin (various issues) and CBN Annual Reports (various issues)

FIGURE 11.1: TRENDS IN RAW MATERIAL AND CAPITAL GOODS IMPORTS (% Total Imports)



Notes: RAWM is raw material import (% total imports); IKG is capital goods import (% total imports).

Table 2 and Figure 1 show increasing import of raw materials for industrialization and hence the low linkage of the industrial sector to the rest of the economy. A strong linkage effect would indicate a gradual fall in raw material imports as the industrial sector begins to replace imports of raw material with locally sourced raw materials.

The results are reflective of the industrial policies adopted in the country to shape and promote the pace of industrialization. The imposition of high tariff on consumer goods import and hence high level of protection, and the relatively low import duties on capital and intermediate (raw materials) goods are suggestive of the high dependence of the industrial sector on imported inputs. Furthermore, the dominance of manufacturing, oil and mining subsectors of the economy by the multinational corporations suggests that frequent changes in technology (technological innovations) may have led to a dependence on imported technology.

That reliance on imported technology is inimical to economic development of LDCs was noted by Bruton (1989). He maintained that imported technology slows down the learning process and hardly creates the capacity for indigenous technological development.

Table 3 shows trends in total factor productivity (i.e ratio of value added in manufacturing to sum of wages/salaries and capital consumption allowance). Two important findings

can be deduced from the Table. First, the ratio of wages/salaries to value added in manufacturing is low. The finding is consistent with Lewis (1966) thesis that although large industrial enterprises spend huge funds on equipment and machinery, they contribute very little to national income. This is closely related to the high cost of capital input employed. It may be indicative of the capital intensive nature of the manufacturing sector. According to Adejube Nigeria economy depends largely on foreign machinery and intermediate inputs which responds less to domestic economic policies and more to foreign influences. Consequently, the industry is yet to be self-reliant. It appears that the sector's performance depends on the country's capacity to import intermediate goods, technology and machinery. Thus his suggestion that efforts at developing local substitutes for intermediate imports has been minimal is quite in order. Indeed the situation has frustrated both import substitution and export promotion policies. This follows because the structure of the industry has been shaped by dependence on foreign inputs, domination of leading industries by multinational corporations, and therefore, has little or no considerations for developing local inputs. It seems that macroeconomic policies related to industrialization that have so far been implemented have failed to produce a dynamic manufacturing sector which rely largely on domestic inputs and impulses. This failure has resulted in a lop-sided structure of the manufacturing sector and weak industrial and corporate linkages within the economy.

Table 3: Trends in Value-Added in Manufacturing Sector and TFPG

| YEAR | Value-added in Manufacturing Nm | Wages and Salaries N million | Capital consumption allowance N million | TFPG | IMPORT N million | Implicit GDP deflator |
|------|------------------------------------|---------------------------------|--|----------|---------------------|-----------------------|
| 1981 | 5194 | 1569.7 | 522.6 | 2.482436 | 12840 | 71.68 |
| 1982 | 5621 | 1586.7 | 625.96 | 2.540381 | 10770.5 | 73.54 |
| 1983 | 6423 | 1659 | 701.7 | 2.720803 | 8904 | 85.4 |
| 1984 | 5859 | 1743.4 | 640 | 2.458253 | 7178 | 100 |

| | | | | | | |
|------|---------|--------|--------|----------|----------|--------|
| 1985 | 7419.5 | 2208 | 810.5 | 2.458009 | 7063 | 103.4 |
| 1986 | 7488.6 | 2228.4 | 818 | 2.45818 | 5984 | 101.5 |
| 1987 | 8592.5 | 2556.8 | 938.6 | 2.458231 | 17862 | 151.95 |
| 1988 | 12760 | 3798 | 1394 | 2.457627 | 21445.7 | 183.5 |
| 1989 | 14004 | 4167 | 1530 | 2.458136 | 30860 | 264.7 |
| 1990 | 16860.8 | 5060 | 1853 | 2.438999 | 45718 | 294.8 |
| 1991 | 22413 | 5698 | 2033 | 2.899107 | 87020 | 336 |
| 1992 | 31281.9 | 6652 | 2233 | 3.520754 | 145911 | 552.8 |
| 1993 | 43189.5 | 6864 | 2277.4 | 4.724605 | 166100 | 691 |
| 1994 | 69069 | 7105 | 2602 | 7.115381 | 162789 | 895.6 |
| 1995 | 120811 | 7601.5 | 2850.7 | 11.55843 | 755128 | 1877 |
| 1996 | 181314 | 8013 | 3125.4 | 16.27828 | 562627 | 2536 |
| 1997 | 204537 | 8238 | 3427 | 17.53425 | 845717 | 2548 |
| 1998 | 208699 | 8469 | 3759 | 17.0673 | 837419 | 2397 |
| 1999 | 224092 | 8706 | 4123.5 | 17.46693 | 862525.3 | 2840 |
| 2000 | 246748 | 10712 | 4524 | 16.19506 | 962964 | 3900 |
| 2001 | 280051 | 11033 | 4964.5 | 17.50592 | 1347466 | 4254 |
| 2002 | 317849 | 11040 | 5561 | 19.14638 | 1580527 | 4739.7 |

Notes: Total value added in manufacturing sector is in million Naira; Wages and salaries in the manufacturing sector in million Naira; capital consumption allowance or consumption of fixed capital is in million Naira;

The second concerns the dramatic increase in total factor productivity from its low level of less than 4.0 between 1970 and 1993 to about 11.6 in 1995 and to about 19.15 in 2002 (see Table 3 and Figure 2). The surprising performance of the manufacturing sector may be due to reduced foreign exchange earnings which forced down importation of foreign

manufactures as a result of liberalization of the foreign exchange market in 1995. For example, whereas from 1970 to 1990 the share of capital goods imports in total import fluctuated between 31.1% to 48.6%, there has been a gradual decline in the share of capital goods imports as it fell from 38% in 1991 to 19.92% in 1996. Thereafter, the average share of capital goods imports averaged 18.1 % between 1997 and 2003 (see Table 2). The decline in capital goods imports probably explains the significant improvement in total factor productivity.

Table 4: Trends in Determinants of Industrial Growth

| YEAR | Wages/Salaries | Export | Real Exchange Rate RER | DUTY | Implicit price Deflator |
|------|----------------|----------|------------------------|--------|-------------------------|
| 1981 | 0.302214 | 11023 | 319.2 | 2326 | 71.68 |
| 1982 | 0.282281 | 8206 | 327.4 | 2336 | 73.54 |
| 1983 | 0.258291 | 7503 | 387.6 | 1984 | 85.4 |
| 1984 | 0.297559 | 9088 | 535.7 | 1616 | 100 |
| 1985 | 0.297594 | 11720.8 | 568.7 | 2184 | 103.4 |
| 1986 | 0.297572 | 8921 | 310.5 | 1728 | 101.5 |
| 1987 | 0.297562 | 30360 | 164 | 3541 | 151.95 |
| 1988 | 0.297649 | 31193 | 99.5 | 5672 | 183.5 |
| 1989 | 0.297558 | 57971 | 88.6 | 5815 | 264.7 |
| 1990 | 0.300104 | 109886 | 82.2 | 1724 | 294.8 |
| 1991 | 0.254227 | 121535.4 | 70 | 3040 | 336 |
| 1992 | 0.212647 | 207266 | 58 | 4903 | 552.8 |
| 1993 | 0.158928 | 218770 | 63.6 | 5627 | 691 |
| 1994 | 0.102868 | 206059 | 118 | 3888 | 895.6 |
| 1995 | 0.062921 | 950661 | 100 | 20436 | 1877 |
| 1996 | 0.044194 | 1309543 | 123.7 | 55000 | 2536 |
| 1997 | 0.040276 | 1241663 | 142 | 63000 | 2548 |
| 1998 | 0.04058 | 751856.7 | 155.8 | 57683 | 2397 |
| 1999 | 0.03885 | 1188970 | 79 | 87907 | 2840 |
| 2000 | 0.043413 | 1945723 | 81 | 101524 | 3900 |
| 2001 | 0.039396 | 2001231 | 89.8 | 170557 | 4254 |
| 2002 | 0.034733 | 1882668 | 95 | 181408 | 4739.7 |

FIGURE 11.2: TRENDS IN TOTAL FACTOR PRODUCTIVITY (1981-02)

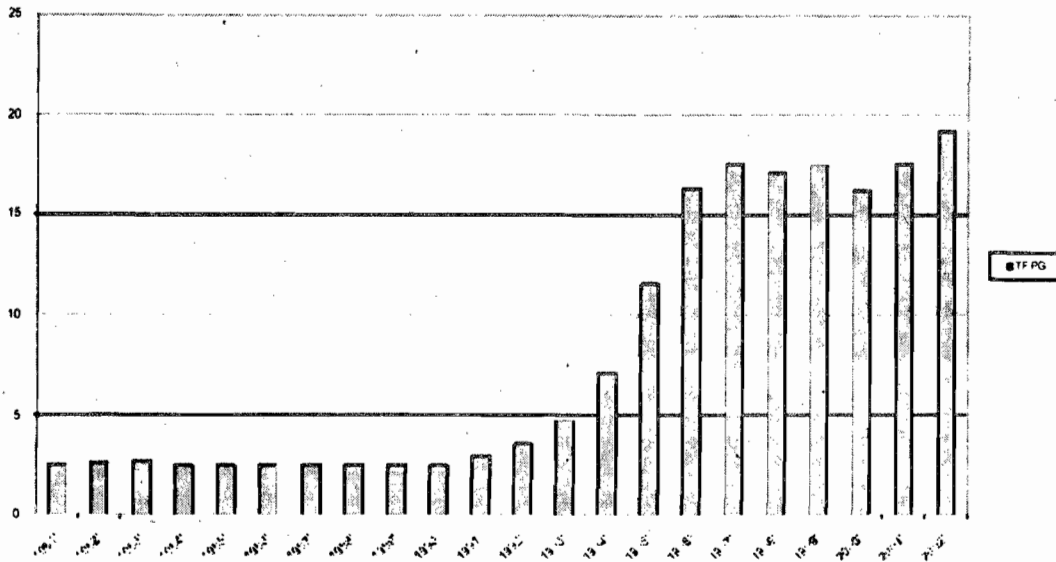


FIGURE 11.3: TRENDS IN RATIO OF WAGES/SALARIES TO VALUE-ADDED IN MANUFACTURING SECTOR (1981-02)

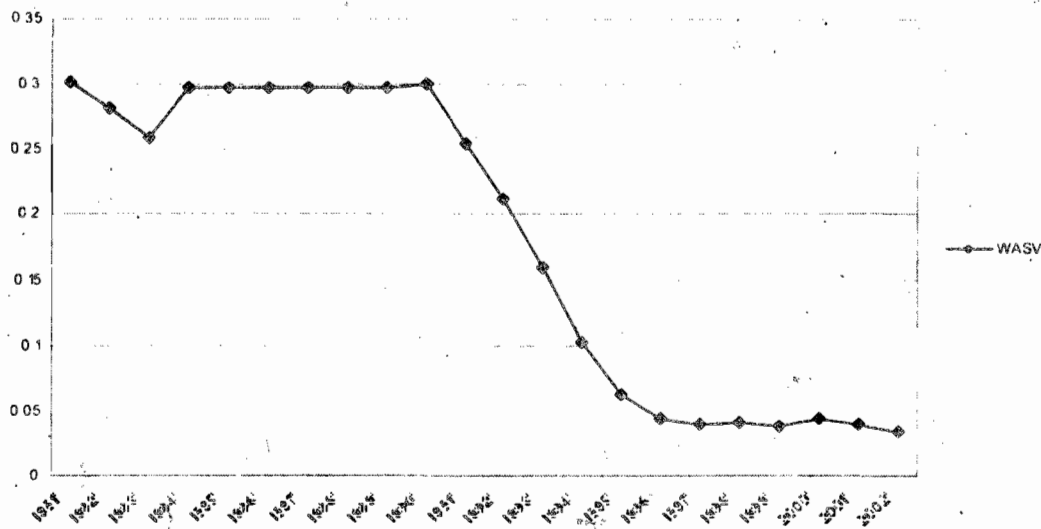


Table 11.5: Determinants of Total Factor productivity

11.5.1 TOTAL FACTOR PRODUCTIVITY AND TIME TREND

Dependent variable: LTFPG
 Current sample: 1981 to 2002
 Number of observations: 22

| Variable | Coefficient | Error | t-statistic | P-value |
|----------|-------------|-------|-------------|---------|
| CONSTANT | -247.33 | 25.41 | -9.735 | [.000] |
| T | 12505 | 01276 | 9.803 | [.000] |

$R^2 = 0.819$ F-ratio=125.87, DW=1.185

11.5.2 TOTAL FACTOR PRODUCTIVITY AND REAL EFFECTIVE

Table 5: Determinants of Total Factor Productivity

4.1 TOTAL FACTOR PRODUCTIVITY AND TIME TREND

Dependent variable: LTFPG

Current sample: 1981 to 2002
 Number of observations: 22
 Estimated Standard
 Variable Coefficient Error t-statistic P-value
 Constant -247.33 25.42 -9.735 [000]
 T- 12505 01276 9 803 [000]
 R²=0.819 F-ratio=125.87 DW=1.185

4.2 TOTAL FACTOR PRODUCTIVITY AND REAL EFFECTIVE EXCHANGE

Dependent Variable: LTFPG
 Estimate Standard
 Variable Coefficient Error t-statistic P-value
 CONSTANT 4.30026 1.28372 3.34985 [003]
 LREER -525368 256733 -2.04636 [054]
 R² = 0.132 F-ratio = 4.187 DW = 1.110

4.3 TOTAL FACTOR PRODUCTIVITY AND REAL IMPORTS

Dependent variable: LTFPG
 Estimated Standard
 Variable Coefficient Error t-statistic P-value
 CONSTANT -10.168 2.153 -4.7234 [000]
 LPIMPO 1.210 219 5.522 [000]
 R² = 0.5841 F-ratio = 30.48 DW = 1.5877

4.4 TOTAL FACTOR PRODUCTIVITY REAL EXPORTS

Dependent variable: LTFPG
 Estimated Standard
 Variable Coefficient Error t-statistic P-value
 Constant -2.862 1.860 -1.540 [139]
 LPEXPO 450 183 2.464 [023]
 R² = 0.1945 F-ratio = 6.072 DW = 1.6173

4.6 TOTAL FACTOR PRODPUCTIVITY, REAL EXPORTS AND IMPORTS

Dependent variable: LTFPG
 Estimated Standard
 Variable Coefficient Error t-statistic P-value
 Constant -10.316 2.200 -4.689 [000]
 LPIMPO 1.126 2616 4.304 [000]
 LPEXPO 096 1567 613552 [547]
 R² = 0.57068 F-ratio = 14.957 DW = 1.579

4.6 TOTAL FACTOR PRODUCTIVITY AND MACROECONOMIC POLICY VARIABLES

Dependent variable: LTFPG
 Estimated Standard
 Variable Coefficient Error t-statistic P-value
 Constant -15.858 3.939 -4.026 [001]
 LREER 226 2643 2.046 [054]
 LDUTY 3231 2090 1.546 [141]
 LPIMPO 1.5590 3178 4.906 [000]
 LPEXPO 1866 1552 1.203 [246]
 R² = 0.6243 F-ratio = 9.7235 DW = 1.0298

4.7 ESTIMATES OF IMPORT DEMAND FUNCTION

Dependent variable: LPIMPO
 Parameter2 Standard
 Variable Estimate Error t-statistic P-value
 C 6.277 2.564 2.448 [014]
 LGDP 0.3520 163 2.157 [031]
 LDUTY -2818 1128 -2.499 [012]
 LRER 2503 101559 2.465 [023]
 LPEXPO(-1) 0032 0595 0540 [957]
 R² = 0.7433 F-RATIO = 37.889 DW = 2.0135

Table 5 provides interesting insights about the performance of import-substitution industrialization strategy in Nigeria. First, we find that total factor productivity grew by about 0.125% on the average between 1981 and 2002. Contrary to Chete and Adenikinju, (1995) there is no negative growth in total factor

productivity (see results indicated in equation 4.). The results also show that overvaluation of currency is detrimental to total factor productivity growth (see equation 4.2). An appreciation of the exchange rate by 1 percent may lead to a fall in TFPG by about 0.525%. *ceteris paribus*. The results also show that exchange rate policy and real imports are critical determinants of total factor productivity growth in Nigeria within the period under review.

Equation 4.6 provides estimates of the determinants of import demand in Nigeria. The results show that whereas an increase in income and appreciation of exchange rate stimulates increase in demand for import, increase in custom duties discourages further imports. The results suggest the need for coordination of exchange rate and fiscal policies to achieve the objective of balance of payments equilibrium through reduction in import demand otherwise positive effect for import reduction through duties may be wiped out or outweighed by the negative effect (increase in import demand) of overvalued exchange rate.

V. CONCLUDING REMARKS

Since the adoption of SAP in 1986, a plethora of policy incentives has been provided to attract foreign direct investment. This led to the review of the indigenization Decree of the 1970s to increase foreign participation. The debt equity conversion scheme was embarked upon to use the proceeds of the scheme to promote industrialization of the economy. The implementation of industrial policy of 1988 led to trade and exchange rate policy reforms. Import tariffs were lowered which led to the reduction of nominal tariff rate from 33 percent to 23 percent (World Bank 1993). Financial liberalization, high interest rates, exchange rate depreciation have raised the cost manufacturing production which, according to Mkandawire (1988), may have engendered de-industrialization in Africa. Including Nigeria.

The new industrial policy of 1988 based on getting the price right provided various generous fiscal incentives and export promotion schemes. However, absence of effective coordination and commitment to the policies is worrisome. For instance, the value-added tax (VAT) introduced in 1994 is collected on input and output (double taxation). According to Phillips, multiple taxes and levies discourage industrial production.

Although attention has shifted from import substitution to export-led industrialization policy, industrialization through export promotion does not necessarily bring about rapid manufacturing expansion. This is because it often exaggerates the significance of foreign exchange in the development process and ignores domestic shortages of essential commodities. This, however, does not deny the benefits of export promotion, which according to Balassa (1981) include stimulation of international competition and enlargement of the domestic market, greater X-efficiency in production, all of which are part of the dynamic effects of trade theory.

In spite of the success story of the newly industrializing countries of South East Asia namely Taiwan, Hong Kong, Singapore and South Korea, it needs be emphasized that export promotion strategies could have detrimental effect on the economy. According to the immiserating growth thesis of Bhagwati (1958), so long as the declining terms of trade exceeds the favourable export expansion, the overall economic welfare could fall following the growth of aggregate income due to export growth. The interest in South-South trade relations prescribed by Bhagwati (1988) is also predicated on trade protective barriers against export of developing countries.

This chapter attempted to provide some insights into import-substitution industrialization strategy in Nigeria and carried out an empirical investigation on total factor productivity growth in manufacturing sector. The results show that contrary to previous studies there has been significant

though modest improvement in total factor productivity growth. The results also indicated that exchange rate policy and imposition of tariff has important role to play in promoting total factor productivity in the manufacturing sector. The absence of statistically significant effect of the custom duties variable was due to its collinearity with the import variable. This is confirmed by the statistical significance of the custom duties variable in the import demand equation.

There is need for enhanced policy incentives to those manufacturing companies which produce exportable products that make use of domestic input. Since policy instability encourages speculative and unproductive investment, stable macroeconomic and political stability is required because export oriented development requires long gestation period. It is for this reason that I cannot agree more with Egwaikhide that the implementation of credible policies and programmes may encourage the inflow of foreign capital into the export sector, a factor that contributed significantly to the export growth of the four Asian Tigers.

The difference between the Nigerian experience and elsewhere including the Asian Tigers is that fiscal incentives granted to industries, together with macroeconomic policies, were formulated with little or no internal logic, as they were not sufficiently discriminatory and selective. This partly account for the weak performance of Nigeria's import-substitution industrialization strategy. As noted elsewhere in this chapter, this is probably due to the absence of internal dynamism for the anticipated self-sustained growth and development through import-substitution.

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