

9-1996

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Recommended Citation

Hogan, E. B. & Onwioduokit, E. A. (1996). Export Processing Zone Programmes: Lessons for Nigeria from Other Countries. CBN Economic and Financial Review. 34(3), 691-711.

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Export Processing Zone Programmes: Lessons for Nigeria from Other Countries

E. B. Hogan and E. A. Onwioduokit*

The monumental success of the export-oriented South-East Asian countries has engendered a shift in emphasis among other developing countries towards export-oriented development strategy in recent times. This paper examines the export processing programmes in Nigeria, drawing from the experiences of other countries where the programme is operational. The analysis confirms that the nature and extent of incentives available in Nigeria's EPZ scheme compares favourably with those provided by similar schemes elsewhere. However, the same cannot be said of infrastructural facilities such as roads, railways and communication. The need for improvement in these facilities is emphasized. Also, security, which is a derivative of political stability as well as consistency in government policies, are highlighted among the necessary conditions for a successful EPZ programme in Nigeria.

I. INTRODUCTION

The disappointing performance of the import-substitution industrialization strategy has led to a shift of emphasis among developing countries towards an export-oriented development. Current economic reform programmes emphasize trade reform policies as being essential for developing countries to become integrated into the world economy. Most academic literature on trade policy reform has, on the whole, adopted an all-embracing approach to trade reforms with little attention to the requisite piece-meal policy measures and operational details. The trade policy measures include exchange rate policy, export policy and import policy. Due to the monumental success of the export-oriented South-East Asian countries, some analysts have focused attention on export policies. This emphasis on exports is due in part to the numerous studies which have demonstrated that the export-oriented strategy has produced not only rapid export growth but also rapid economic growth (Warr, 1989). One of the effective tools in the export promotion strategy which has

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been a feature of the South-East Asian countries is the establishment of Export Processing Zones (EPZs). Given the success of EPZs in these countries, other developing countries have considered their establishment as a strategy to follow. The question to be asked is how realistic is the attainment of this "emulative vision" given the diverse economic backgrounds of most developing countries. In specific terms, how can Nigeria, presently embarking on the EPZ programme, benefit from the experiences of other countries with operational EPZs? Responding to these questions largely form the purpose of this paper.

Export Processing Zones are special enclaves usually (but not always) fenced in an area of 10 to 30 hectares which are outside a country's normal customs barriers, within which firms, mostly foreign companies, enjoy a special status in terms of imports and exports, taxation, provision of infrastructure and a liberal regulatory environment. From a policy perspective, EPZs are set up to insulate exporters from the infrastructural and policy inadequacies of the economy at large. Their attraction lies in their ability to enable countries to attract foreign investment, diversify and increase exports and create employment in special enclaves without pursuing economy-wide and comprehensive liberalization policies which might be difficult and prolonged.

Analytical consideration apart, the performance of EPZs in some countries is compelling enough for other countries to follow. According to the World Bank, in Malaysia, "the Export Processing Zones were crucial to the successful combination of import substitution and export promotion. By 1980, 20 per cent of manufactured exports originated from EPZs."¹ Also for China, during the period 1979 - 1989, direct foreign investment in the (special) economic zones reached US\$4.1 billion. Spill-over from the zones has boosted growth in the provinces that host them. In 1980 - 1985, industrial output grew at an annual rate of 16 per cent in Guangdong (an EPZ province) and 14.7 per cent in Fujian (also an EPZ province) compared to 6.9 per cent nationwide." Given this evidence of the positive contributory role of EPZs, their economic logic, performance, impact, static and dynamic effect, their applicability in other economies are all legitimate areas of research.

This paper focuses on the economic logic, performance and impact of EPZs. In the EPZs evaluation, an important distinction is made between EPZs' static aspect of costs and benefits and the dynamic effects which relate to policy evolution and industrialization. An important part is the surveying of studies done on the performance, impact, costs and benefits of EPZs in countries such as Taiwan and Mauritius. This survey is intended to discern and highlight features and aspects of EPZs which are necessary for their success. An appraisal of Nigeria's current experiments is made in order to ascertain areas that need fine-tuning so as to reap a greater benefits for the country.

There is very little amount of previous research work on EPZs. Indeed, given their prevalence in developing countries, their contribution to economic growth and their continued popularity, past research on EPZs is not commensurate with their

importance. In Nigeria for instance, there is a conspicuous absence of research work in this area. The present study intends to fill such observed gap. The specific objectives of this study therefore are to:

- (i) outline the theoretical foundations of EPZs and establish their economic logic;
- (ii) survey the studies done on EPZs in countries cited earlier in order to evaluate their role in the respective economies; and
- (iii) appraise the Nigerian EPZ experiment in the light of experiences of other countries in order to make policy recommendation for the purpose of fine-tuning the existing policy for greater efficiency and enhanced growth.

The remaining part of this study is arranged as follows. Part II contains a review of theory/literature on EPZs. In part III, an overview and examination of contemporary trend of EPZs is presented. Part IV dwells on historical antecedent of EPZ in Nigeria. The section also examines the possible socio-economic impacts of EPZ on Nigeria's economy. Global evaluation and examination of countries' specific experiences with EPZ is done in Part V. Part VI contains policy recommendations and some concluding remarks.

II. LITERATURE REVIEW

In terms of the theoretical studies on EPZs, the dearth of research in this area is striking. Apart from attempts by Hamada (1974), Hamilton and Svensson (1982), a comment on Hamada's work by Rodriguez (1976) and a paper on the theory of free economic zones by Grubel (1982), there are no other specific theoretical articles on EPZs. Among the above, Grubel alone attempts to formulate a theory of EPZs through his work on trade creation and locational trade diversions (an import from the analysis of customs union). A considerable amount of research (though still modest in comparison to other trade policy issues) has been confined to empirical work in various EPZ host countries. These include Alter (1991) on Mauritius, Warr (1989) on Korea, Malaysia, Philippines and Indonesia, Sit (1985) on China and Spinanger (1982) on Singapore. The thrust of these studies has been on the static effects of EPZs basically covering the costs and benefits directly emanating from EPZs or the linkages between the EPZs and the host country.

The studies on static impact have looked at foreign exchange earnings, employment generation, technology transfer, and the remuneration of the factors of production. In a few of the articles, an attempt is made to link EPZs to the general economy-wide policy. The World Bank (1992) has produced a report which outlines its experiences with EPZs. According to the World Bank, EPZs' main role is as a transitional instrument, enabling a country to enter into world markets while undertaking policy reforms to shift it toward an outward-oriented development. In this way, the World Bank opined that EPZs should not be a substitute for economic reforms. In particular, the success of an EPZ in an adjusting reforming economy

has a positive demonstration effect on the feasibility of an outward-oriented development strategy. The EPZs become a reform laboratory where the future economy towards which reforming countries are slowly advancing can be seen in operation. The EPZ success has had a significant positive impact on trade policy in Malaysia, Sri Lanka and Taiwan. On the other level is the compatibility of the policy content of an outward-orientation reform with the policy environment under which EPZs are successful. In this regard, it has been noted that competitive exchange rates and macroeconomic stability correlate with EPZs successes (World Bank, 1993). Indeed, EPZs perform well if they are part of a general economy-wide trade and macroeconomic reform policy. In this way, EPZs become an instrument which is a rational component for inclusion in the package of instruments to re-orient an anti-export biased economy. EPZs become part of the economic structural adjustment programme.

The objective of looking at the theoretical foundation of EPZs follows from the pre-position that EPZs are justifiable on the basis of economic theory and development imperatives. From the perspectives of the investors in EPZs, the behaviour of the "footloose" manufacturing firm provides the economic foundation. The EPZs exploit the international mobility of capital goods owned by the "footloose" manufacturer and combine them with domestic labour to produce traded goods. This process can be seen as an indirect way of exporting labour. The firms move their capital to countries in which it can earn the highest rate of return.

The activities in EPZs produce final goods using three kinds of inputs namely, traded intermediate inputs, capital goods and labour. Over time, competition in product markets push down prices of goods produced thus lowering the rate of return on capital used in producing those goods. In this case, unit labour cost, as distinct from unit capital cost, becomes an important factor in the decision of locating the production of goods. Eventually, there is a gradual migration of the manufacturing process from rich to poor countries. From the perspective of host economy, the basic logic of using EPZs lies in the fact that the structure of economic incentives and production costs during import substitution impinge negatively on export profitability. Dismantling overnight the domestic oriented incentive structure might be costly. Thus, the logic of EPZs is the creation of an area in which certain conditions and policies which the government is unwilling or unable to provide on an economy-wide basis operate. Thus, an EPZ allows the government to create an "enclave," isolated from the domestic economy within which export-oriented policy initiatives can be accepted.

Several studies have been conducted on the performance and impact of EPZs in various countries with the general conclusion that EPZs do achieve most of their objectives and have a positive impact on the country's welfare. Numerous approaches have been used on the study of the welfare impact of EPZs on the host economy. According to Spinanger (1985) in analyzing the static impact of the EPZs in Malaysia and the Philippines, employment, sales (exports), purchases (either imports or from the host economy), and remunerations of factors of production

have to be calculated. It is then assumed that a positive balance vis-a-vis the domestic economy represents a net benefit to the economy, i.e. the investment in the EPZs infrastructure is compensated for by recent wages and local purchases of capital and intermediate goods as well as services. It is pointed out that static effects can be relatively easily measured but the dynamic effects of EPZs from which the important and more permanent industrialization impulses are expected can only be broadly outlined. Hence, in order to investigate the industrialization process, Spinanger has analysed EPZs with respect to the structure of employment, production and export as well as the factor intensity of production taking place therein.

Another approach is the enclave approach put forward by Warr. According to Warr (1989), the benefit and cost of an EPZ as experienced by the host country's citizens are compared to the hypothetical results of not having a zone. The foreign ownership of the EPZ firms and their "offshore" nature lend themselves to an analysis termed the "enclave approach" as used by Corden.

The figure below illustrates its diagrammatic elements.

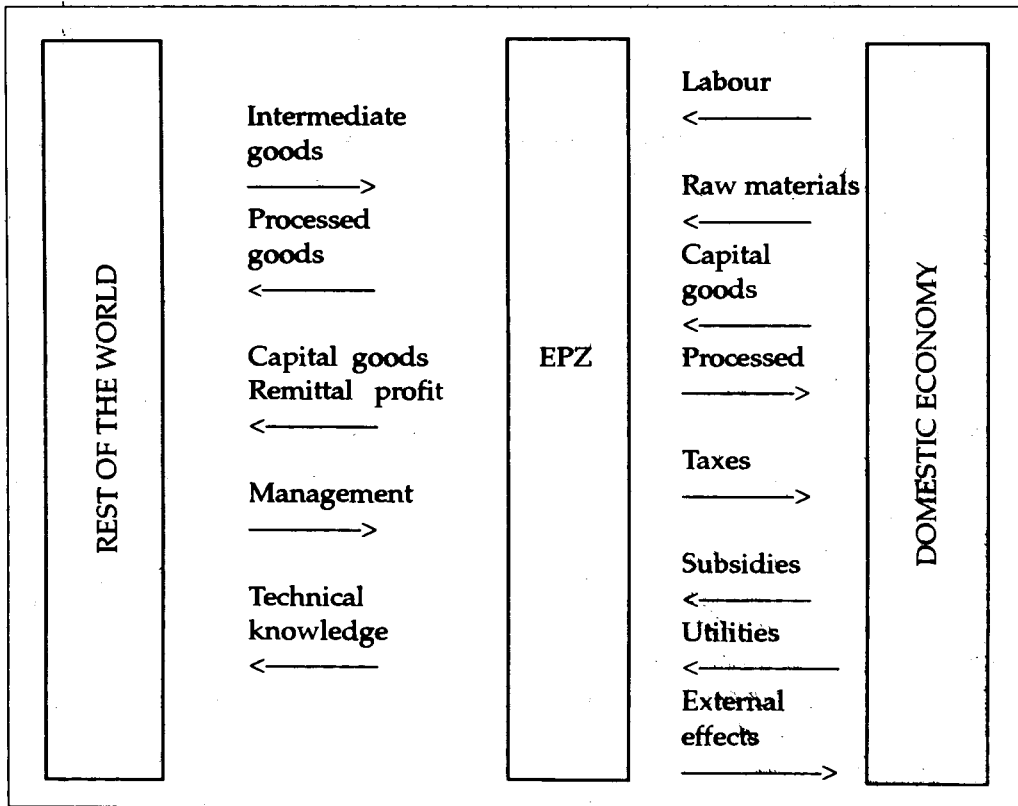


Fig. 1.1: The Enclave Approach

This approach considers:

- (i) the flow of goods between the EPZ and the rest of the world;
- (ii) the flow between the EPZ and the host country.

The flow in (ii) are relevant for evaluating the welfare impact of the zone but the flow in (i) are not. Thus, the EPZ is an isolated part or foreign enclave in the domestic economy. An illustration of this approach is provided by the issue of transfer pricing. If, for instance, there are no profit taxes on EPZ firms, the transfer pricing influences whether a firm's profit is recorded in the host country or elsewhere. However, as far as profit is earned by the EPZ firms, whether it is realized in the host country or somewhere else and whether it is remitted or retained by the firm is irrelevant for the economic welfare of the host country. If profit is taxable, however, the transfer pricing affects the size of these taxes and becomes highly relevant. According to Warr, the net outcome of real and financial flows as shown in the figure above does not necessarily raise welfare in the host country. Hence, only a detailed examination of the costs and benefits can resolve this question. The components of a benefit and cost analysis of EPZs are the foreign exchange earnings, employment transfer, domestic sales, purchases of domestic goods, developments and recurrent costs. Warr looked at the evidence from four Asian countries, namely, Indonesia, Korea, Malaysia and Philippines. In the study, he used shadow prices to evaluate EPZs and show that the contribution of each major benefit-cost categories to the aggregate approximates present value of the EPZs.

III. EXPORT PROCESSING ZONES: AN OVERVIEW AND CONTEMPORARY TREND

Governments in developed countries, newly industrialized countries (NICs) and developing countries have promoted EPZs in various forms because they can serve as:

- (i) tools for helping their economies overcome the inability to generate an outward supply response;
- (ii) sources of immediate employment; and
- (iii) sources of foreign exchange earnings by inducing foreign direct investment.

The critical path for effectiveness requires certain policies to be in place and an enabling environment to be created. These include:

- (i) realistic exchange rates and stable macroeconomic environment critical for all manufactured export;
- (ii) clear and well conceived policies towards foreign investment;
- (iii) unrestricted access to duty-free imported inputs and capital goods and rapid, low-cost customs clearance for imports and exports;
- (iv) no restrictions on foreign exchange for EPZ firm's export-related international transactions;

- (v) minimal regulating interference in the actions and transactions in the EPZs, including freedom to hire and fire workers at low transaction costs; and
- (vi) appropriate location, generally in a major urban area, with suitable low-cost labour, transport (major port, good roads, and an international airport), utilities (electricity, water, sewage and reliable communications) and services (maintenance, security).

The world's first full-fledged industrial estate was set up in 1896 as a private commercial venture at Trafford Park in Manchester, England. What is generally regarded today as the first EPZ in the U.S.A. also began operations in 1896. The first developing country to make use of publicly-funded industrial parks was Puerto Rico in 1947. The first EPZ in a developing country was established at Kandla in India in the mid-1960s, and the first EPZ in sub-Saharan Africa was created in Mauritius in the year 1970.

In the past two decades, there has been a considerable evolution in the EPZ concept. First, unlike the traditional approach where EPZs were confined, the benefits and advantages of EPZs have been extended to areas scattered throughout a country's territory on which national and foreign firms are located. The aim has been to promote specific types of economic activity regardless of location to achieve integration with the national economy and to allow foreign firms to choose the specific location for their activities. Some EPZs cover a very large area, as in the case of the special economic zones in China. In other cases, a whole town or country has free zone status.

In recent times, EPZs have become increasingly popular in a number of developing countries as an export policy instrument. EPZs are expected to have a demonstration effect for attracting foreign investment to the country as a whole and for initiating economy-wide export development policies.

In 1991, eighty-six EPZs were in operation in twenty-seven developing countries around the world. However, if the broader definition of EPZs is adopted to include bonded factories, in addition to full-fledged industrial estates, the number of developing countries with EPZ programmes would be put at forty-three. In the early 1980s, duty-free manufacturing for export took place mainly in industrial estates offering full infrastructure and factory facilities. Mexico's bond factories and the EPZ programme initiated in Mauritius were to suit specific business environment of each country. For example, private zone development and operations have emerged as a successful initiative in a number of Caribbean countries. Nogales shelter plan was introduced in Mexico as an alternative aimed at reducing risk to foreign manufacturers. Specific Economic Zones were developed in China as an option for attracting foreign investment as well as for developing regional infrastructure and services. While there are no specific EPZs in such countries as Hong Kong and Singapore, the whole policy environment provides an attractive package to investors

The conventional industry mix of EPZs has experienced gradual changes over the years. Many EPZs have initiated programmes diversifying away from simple labour-intensive industry to more sophisticated technology fields. The newly industrialized countries in particular have focused increasing attention over the past decade on promoting high-tech enterprises such as science parks. There has also been a change in the role of imports. The original intention was for industries in EPZs to export their entire production. In recent times however, firms in most EPZs are allowed to sell part of their output in the domestic market. The development of an import function is mainly attributable to the practical difficulty of controlling smuggling from EPZs into the host country and to pressure from national consumers and foreign investors who are attracted by the potential profits from sale to the local market.

Considering the large number of EPZs in operation, only some have been very successful. Many lack a suitable investment climate, experience difficulties in operating under complex laws and regulations or face management problems, inappropriate location and high costs. Inadequate understanding of the basic preconditions for operating an EPZ and the role of EPZ as one of the options among export policy instruments have led to more failures than successes. Countries in the initial stages of zone development often also lack skilled personnel in managing and promoting the zone.

As indicated earlier, the first EPZ in sub-Saharan Africa was created in Mauritius in 1970. In the succeeding decade, others were set up in Senegal, Liberia and Ghana. Subsequently, others were established in Zaire (1981), Togo (1989) and Madagascar (1989). The most recent EPZs are those established in Cameroon and Kenya in 1990. Six others have recently been initiated and or are under study in Benin, Comoros, Malawi, Nigeria, Rwanda and Zimbabwe.

Not all of these EPZs have been so successful. Administrative hurdles, insufficient promotion, inadequate infrastructure and minimum investment levels, among others, have discouraged investors. Although the EPZs in Zaire and Ghana have been established for a number of years, for example, they have not yet become fully operational. This disappointing experience has led a number of African governments to introduce changes in the legal status of the EPZs, accompanied by a relaxation of the regulations governing their activities. This approach informed the more liberal foreign investment policy being currently followed by many African countries. Delocalization based on the belief that the potential benefit of a zone can be maximized if it becomes integrated into the economy of the host country is one of the new policy approaches being adopted. This approach tends to change the composition of the output of EPZs with a growing emphasis on high value-added products involving more sophisticated technological processes. The promotion of local participation by encouraging greater involvement of nationals in the capital of EPZ enterprises are other means of integrating EPZs with the economies of the African countries.

IV. EXPORT PROCESSING ZONES IN NIGERIA: BACKGROUND

Nigeria's external sector policies witnessed a deliberate shift from import substitution to export promotion, beginning in 1986. Prior to this period, policy emphasis had been on how to ensure a favorable balance of payments position by reducing imports. This was because from the period of the first positive oil price shock in 1973/74, foreign exchange earnings from oil exports were taken as given while attention on the external sector was to ensure the use of oil export earnings to finance import replacement programmes.

Thus, trade policies in Nigeria then protected local manufacturing of industrial raw materials and importation of intermediate capital imports. This import substitution industrialization strategy implies an inward looking trade regime, which confers substantial protection on import competing manufacturing activities (Robertson, 1981). It was in the mid-1980s, after the collapse of the oil market, that the negative consequences of these policies on the country's external sector manifested largely. The strategy was sustained by a set of high import tariffs which also taxed Nigeria's traditional exports (agriculture). The most pervasive of the effects of this policy is its effect on real exchange rate. According to Oyejide (1986), the real exchange rate that maintains external balance at a given rate of industrial protection lower than equilibrium rate would prevail because an increase in import tariffs corresponds, *ceteris paribus*, to a decline of the real exchange rate. Thus, a given level of protection to industry reduced the domestic prices of exportable sector to the industrial and non-traded goods sector. To the extent that the oil boom lasted, the economy was able to absorb these since the needed raw materials for the operation of the industries could be imported. However, following the collapse of the oil market, it became increasingly obvious to policy makers that such external sector policies were wrong. An outward looking regime was substituted for the import-substitution strategy.

A battery of policy reforms and incentives were segmentally put in place to encourage the production and export of non-oil tradeables. Nominal exchange rate devaluation, strict fiscal discipline, controlled monetary expansion, among others, were introduced to ensure real depreciation. These were followed by export incentives which included duty draw-back scheme, explicit export bonuses and the introduction of an export credit agency named Nigeria Export-Import Bank (NEXIM). To complement these incentives and to ensure that export promotion policy is linked to skill acquisition, technology transfer and industrialization, a Nigeria Export Processing Zone (EPZ) was proffered.

The idea of an Export Processing Zone (EPZ) in Nigeria was first mooted in the mid-1970s at a time when the EPZ concept was rapidly expanding in the Far East and the Caribbean. However, it was only in 1979 that the Federal Government accepted in principle that an EPZ had a role to play in the development of the country. In the following year, 1980, the Federal Ministry of Industry commissioned a

company, Gills Nigeria Limited, to carry out a feasibility study relating to the establishment of an EPZ in Nigeria. The Consultants recommended that:

- (i) for a start only one zone of 300 hectares should be established;
- (ii) the first EPZ should be sited at Calabar and geared towards accommodating petrochemical industries;
- (iii) other free zones could be subsequently established; possible sites included Ajaokuta, Ibadan, Sokoto and Makurdi;
- (iv) responsibility for establishing and managing the EPZ programme should rest with an autonomous body, the Nigerian Export Processing Zones Authority; and
- (v) the incentive package should provide for:
 - 100% foreign ownership;
 - relief from taxation and customs duties;
 - efficient administrative procedure;
 - good quality infrastructure;
 - guarantees on the repatriation of capital and profits; and
 - foreign currency accounts for each investor to facilitate import and export transaction.

Based on the positive indications of the report submitted in January 1990, the Nigerian Government requested the United Nations Industrial Development Organization (UNIDO) to conduct a detailed study which would deal with the question of establishing an Export Processing Zone Programme for Nigeria and to outline conditions necessary for the development of the first Nigerian EPZ on a proposed site beside the Port of Calabar. Based on the UNIDO report, the Federal Government of Nigeria promulgated the Nigeria Export Processing Zones Decree No. 63 of 19 November, 1992. The said Decree also established the Nigerian Export Processing Zones Authority. Nigeria's EPZ is essentially fashioned after Taiwan's EPZ.

Progress on the Calabar EPZ

Following the choice of Calabar as the site for Nigeria's premier EPZ, the foundation stone for the project was laid on 1 November, 1992. Fenced within an area of 300 hectares of land, the Calabar EPZ is situated beside the new Calabar Port Complex and is about 25 kilometers from the Calabar international airport. The Federal Government, through the managing agency, the Nigerian Export Processing Zones Authority, has taken steps to provide the needed facilities for the take-off of the Zone. The facilities at the Calabar EPZ are at advanced stages of completion. There are also well laid and wide road network within the Zone. The monthly progress report on facilities at the Zone for the month of May 1995, showed that the road network and connection of electricity to the national grid had reached 98 per cent completion stage while the drainage and sewerage and installation of low and

medium voltage electrical network had reached 95 per cent completion stage. The construction of water distribution network and fire fighting distribution network were at 80 per cent completion and work on erosion control project had reached 70 per cent. However, only 40 per cent of telecommunications and civil works was completed. Installation of telecommunications equipments had not begun but these equipment had been imported and were awaiting clearance from the port. Also, the sewage treatment plant was not yet installed.

The major facilities at the Zone which had on the average reached 75 per cent completion stages were the generator house, Administration Building, Mess Hall, Customs House, Fire Service Building, the Police Post and the Maintenance Building. Renovation work on five abandoned buildings which were already in the site at its inception had also reached advanced stages. They will form part of the pre-built factory buildings in the Zone. Construction of three high technology factory buildings was in progress. One of them had reached 90 per cent completion stage while the other two were at 50 and 14 per cent, respectively. Also, five medium scale factory buildings and three warehouses were being constructed.

The new Calabar Port Complex is expected to play a pivotal role in the Calabar EPZ. Located on latitude 4° 55' 02" N and longitude 8° 15' 20' E, the new port lies about 93 kilometers from the Fair Ways Bouy and 8 kilometers from the main channels of the Cross Rivers. It occupies an area of approximately 38 hectares of land and fully buoyed river channel 80 nautical kilometers long and 150 nautical kilometers wide. In line with the very important role the Calabar Port has to play in the success of the EPZ, additional 34 hectares of land has been acquired along the shores of the Port to make room for facilities expansion when the need arises. The Port has also acquired new facilities which include 6 kalmar container landers ranging from 3 to 28 tons capacity; 2 – 4 tons Climax forklift and a heavy duty tug (M/T Palasa) which helps vessels to berth. The newly acquired facilities are backed up by other facilities like a 23 tons truck and tractors and cranes which could be hired by third parties. The Port also has spacious and safe warehouses. The channel of the Port is currently dredged to 7.6 metres while the area alongside the berths and turning basins are dredged to 13 metres and 9 metres, respectively, because of the need to meet with the requirements of big merchant vessels that will naturally call when the EPZ takes off.

Socio-Economic Impact of the Calabar EPZ

As pointed out earlier, the main objective for the creation of EPZs is to promote the development of export-oriented marketing activities. To achieve the above objective, the government has put in place a number of fiscal and administrative incentives which include:

- (i) the waiver of legislative provisions pertaining to levies, duties and foreign exchange;

- (ii) tax holiday;
- (iii) permission to repatriate foreign capital investment and capital appreciation in EPZs at any time;
- (iv) unrestricted remittance of profits and dividends earned by foreign investors in EPZs;
- (v) exemption from paying export and import duties;
- (vi) rent-free land for factory construction; and
- (vii) permission to allow the sale of up to 25 per cent of production in Nigeria.

It is clear from the above that the EPZ as conceived is likely to make a major impact on Nigeria's economy. First, from what has happened in other countries where this method of export promotion has taken place, it is likely to increase foreign exchange inflows. This could come about through a number of ways. First, it is likely to lead to an increased inflow of Foreign Direct Investment (FDI) as foreign investors take advantage of the fiscal and administrative incentives to invest in the Zone. Second, it may lead to increased export earnings as export capacities are developed in the Zone. Increased production of tradable manufactures and the condition that up to 25 per cent can be sold in the domestic market may also ensure a reduction in imports. Thus, the EPZ is likely to reduce considerably the balance of payments pressure and moderate the depreciation of the Naira as exports increase and imports decline.

The EPZ may lead to a development of an efficient manufacturing sector. This is because the quality of goods to be produced in the zone will be of export standard. Linkages with the domestic economy will ensure efficiency gains in the larger manufacturing sectors of the economy. This is because leakages of skills, technologies and marketing know-how to the larger domestic economy are likely. These were the case in Taiwan, Malaysia and Mauritius. A corollary to the above is the fact that the expansionary effect of the envisaged initial employment at the EPZ will also spill over to the rest of the domestic economy and perhaps start a chain of employment increasing sequences that may reduce significantly the unemployment problem of the country. Unlike the employment generation potentials of an import substitution strategy which dissipates rather rapidly as a result of limitation of the market, the employment generation potential of the EPZ is only constrained to a large extent by the limitations of the world market which implies a high employment potential. Around the world, EPZs have led to a creation of over 1.5 million employment opportunities for workers. In addition, EPZs would lead to the generation of improved value-added and increased capacity utilization in industries as demand rises locally in reaction to improved employment. For example, in the Massen EPZ in South Korea, production of manufactured goods grew by more than 30 per cent in real terms between 1973 and 1986 and exceeded US\$1.5 billion in 1988. In terms of domestic sourcing of inputs, by 1987, more than two thirds of all EPZ inputs were supplied locally compared to only six per cent in 1971 (Majid, 1992).

The EPZ is likely to attract technology and lead to the acquisition and upgrading of management and technical skills. Due to the fact that the zone is going to be free from the wedge between the domestic economy and the rest of the world, technological developments will naturally be speedily adopted in the zone as firms try to match competitions with other markets. Management techniques will improve and will be directed at cost saving and efficiency and linkages with the domestic economy will ensure that these are transmitted.

There are however, possible negative economic consequences of the EPZ. First, the set of concessions to be provided to the zone is likely to affect interspatial structure of incentives thereby leading to regional disparities in income distribution. This may in turn lead to inter regional tensions. Secondly, since the EPZ emphasizes the production of exportable manufactures, it may lead to a shift in the incentives system that may now negatively affect the production of home goods, especially non-tradable agricultural commodities. This would now mean that the country may start importing those goods which it could previously produce at home. The reason for this is that factors of production may be better rewarded in producing those goods which are supplied to the EPZ, making mobile factors to move out of less rewarding sectors to those sectors that are growing as a result of the EPZ. This phenomenon could be termed "EPZ disease" after the well-known "Dutch disease" thesis. This explains in part, the co-existence within the economy of progressing (EPZ sector) and declining or booming and lagging sub-sectors.

Additional negative impact that can also be evaluated along the lines of the so-called "EPZ disease" is the effect on productivity growth as a result of the EPZ on the real exchange rate and the rest of the domestic economy. If the productivity growth is Hicks-neutral (i.e. factor ratios remain unchanged if factor prices remain constant) Diakosavas and Kirpatrick (1990) argued that then production transformation curve would shift symmetrically upwards. The real exchange rate in this case might depreciate or appreciate depending on income elasticities of demand. If expenditure growth is biased towards tradeables, the real exchange rate will depreciate, and vice versa. If it is Hicks-neutral, the real exchange rate will be affected directly; if it is biased towards tradables, then the real exchange rate will tend to appreciate. Since productivity improvements as a result of the EPZ are expected to be higher in the tradable sector than in the non-tradable sector, appreciation of the real exchange rate for the whole economy is expected, which may in the longer-run hurt exports.

Also, the negative social consequences of the EPZ may derive from erosion of the country's culture as a result of the possible influx of foreign businesses. Eating habits may also change, while cultural identity may eventually be diluted if not properly guarded.

V. EXPORT PROCESSING ZONES: GLOBAL EVALUATION AND COUNTRY SPECIFIC EXPERIENCE

About sixty of the eight-six zones in twenty-seven economies have been operating long enough to permit interim judgments about their success. Based on such rough criteria like employment, exports, value added and net earnings from exports, industries attracted and foreign investment, twenty-five of these zones appear to be predominantly successful, another ten come close, seven are partly successful and eighteen are clearly unsuccessful. Most of the unsuccessful ones date from the 1970s, when economies were experimenting with this instrument³.

According to the World Bank (1993), almost all the successful EPZs are in the Asia region (eighteen of them) or in the Dominican Republic and Jamaica, where at least six appear predominantly successful, six are on the verge of success, and the others are new. Elsewhere, there is only one other clear-cut EPZ success (a small private zone at Cartago in Costa Rica), three zones are partly successful, and as many as fourteen are unsuccessful. The twenty-seven zones in these other parts of the world employed only 25,000 people in 1990, or less than 1,000 per EPZ; comparable figures for Asia are 10,500 and about 6,000 for the Dominican Republic and Jamaica.

Two zones are rated poorly. These are Kandla in India, which requires constant subsidies (because of high transport costs) and artificial pricing of output (exported mainly in barter trade with the USSR), and Bataan in the Philippines which had enormous infrastructure and other construction costs because of its inappropriate location. Most zones that are considered partly successful have achieved only a partial occupancy rate, and most of the unsuccessful zones have remained virtually unoccupied. Using EPZs to promote development in background regions had generally led to very poor results.

Employment

Employment in EPZs in developing economies reached about 530,000 people in 1990. Of this labour force, roughly 71 per cent is in Asia, 21 per cent in the Dominican Republic, 7 per cent in Latin America and the Caribbean, and 1 per cent in the rest of the developing world. Exceptions include Taiwan (China), at over 45 per cent, and the Masan Zone in Korea, at 51 per cent. Of the 25 per cent or so of value added in a zone, typically at least half is labour costs; others include payments for rent, utility, transport, services and goods inside the country; while some go to the owners and their creditors (including equipment supplies) abroad. Thus, net foreign-owned EPZ plant may be as low as 15 to 20 per cent of the value of the exports.

Exports

In most of the developing economies, manufactured exports, which totalled \$258 billion in 1988, came from firms that enjoyed free trade status through duty

exemption or duty draw-back systems with in-bond systems ranking third and EPZ, fourth. The exports from fenced-in EPZs in 1988 were \$11 billion to \$13 billion or 4 to 5 per cent of total⁴. About 80 per cent of EPZ exports were from Malaysia, Korea and Taiwan.

Industries Attracted and Foreign Investment

EPZs concentrate their exports and employment in few labour intensive industries, with two main patterns. In the first pattern, electronics predominates, as in Korea, Malaysia and Taiwan. Other precision industries are usually present as well, while garments account for about 10 to 15 per cent of employment. In the second pattern, garment manufacturing predominates, as in most of the zones in Bangladesh, the Dominican Republic, Indonesia, Jamaica, and Sri Lanka. Foreign owned firms and their joint ventures predominate in most EPZs.

Exchange Rates and Macroeconomic Stability

Success in developing EPZs has been definitely correlated with realistic exchange rates and stable macroeconomic policies. Five of the nine Asian economies with EPZs – Indonesia, Korea, Malaysia, Taiwan (China) and Thailand – have maintained fully realistic exchange rates. Their average inflation rate for 1980-1988 ranged from 1.3 per cent for Malaysia, to 8.5 per cent for Indonesia.

Country Specific Experience

As noted earlier, Nigeria's EPZ is modelled after the Taiwan's EPZ. To that extent, our analysis in this segment essentially concentrates on Taiwan and Mauritius. Mauritius is selected for in-depth study because it is the African success story. Principally, factors that are responsible for their success are identified. In broad terms, experience suggests that certain policies at the macroeconomic level and policies specifically affecting EPZs are important for their success. On the macroeconomic level, a realistic exchange rate and a stable macroeconomic environment are prerequisites for all manufactured exports. For policies affecting firms in the EPZ, key factors are:

- (i) a clear foreign investment policy regime (including the possibility of 100 per cent foreign ownership and guarantee profit repatriation);
- (ii) restriction-free and duty-free access to imported inputs and capital goods;
- (iii) rapid, low-cost customs clearance for imports and exports;
- (iv) a completely liberalized foreign exchange regime for EPZ firm's export-oriented international transactions;
- (v) speedy responses to uncompleted investment applications;
- (vi) minimal regulatory control of actions and transactions within the EPZ (including freedom to hire and fire workers at low transaction costs);

(vii) extension of free trade status to EPZ estate development and management.

On the industrial estate side, key factors include:

- (a) appropriate site selection and location; generally in a major urban area, well provided with stable, low-cost labour;
- (b) utilities (electricity, water, sewerage, and reliable telecommunications) and services (maintenance, security, banking);
- (c) good zone administration and management (including phased construction of suitable factory spaces for rent as well as complementary facilities); and
- (d) appropriate promotional efforts.

On the other hand, Warr (1989) observed that operational failures of EPZs most frequently stem from poor site selection, economies with unfavourable business environments or poor trade infrastructure, poor management, and inadequate promotion. Another contributing influence has been excess capacity building in EPZs industrial estates, but this has become less frequent. Policy failure of EPZs include the tardy formulation of required policies, an over-regulated and rigid business environment, ineffective implementation of EPZ laws and regulations, and lack of follow-up on further trade reforms.

CASE STUDIES

Taiwan EPZ

Taiwan (China) already had fast-growing manufactured exports based on sound export policies when it started its first EPZ in 1965. It had created an excellent draw-back and exemption regime known as a rebate and rebate-on-account system in 1955 and had followed that up with exchange rate and macroeconomic policy reforms. As early as 1956, it had begun to study Puerto Rico's industrial estates. However, the trade regime still had a vast array of hidden and open quantitative import controls. Also, generally high tariffs and regulatory regimes were still too restrictive and complex to appeal to investors from developed economies.

The Kaohsiung EPZ was an instant success, and by late 1970, four years after it shipped out its first exports, it had 162 firms and about 40,000 workers. Also by then, a second EPZ had been inaugurated and a third was nearing completion. EPZ exports never constituted much more than eight per cent of total export and contributed some of the earliest foreign investment from developed economies to the development of technically demanding industries.

Taiwan (China) went on to achieve phenomenal export success, including a remarkable diversification away from garments. In the 1970s, it began to liberalise its policies, and in the 1980s it undertook a dramatic and sweeping liberalization of its imports. Confidence and know-how acquired from the EPZs seem to have

contributed significantly to these achievements and to a convergence of the policy environment inside and outside the zones.

Mauritius EPZ

Mauritius is a tiny island located in the Indian Ocean on the South and Eastern flank of Africa. In many respects, it is a bridge between the African continent and the Indian sub-continent. The EPZ in Mauritius typifies the attitude in the majority of developing countries that EPZ establishment should go unabated. This is pertinent in that the natural resource endowment of Mauritius is far less than a number of sub-Saharan African countries, including Nigeria. The success is almost entirely attributable to determination which resulted in the diversification of the primary sugar-based economy into an export-oriented producers of manufactures. As indicated earlier, the Mauritius EPZ was launched in the 1960s with government embarking on a programme of diversification of the primary sugar-based economy into an export-oriented producers of manufacture in the 1960s, but with experience, the thrust shifted to an outward-looking policy. The establishment of an EPZ served as the centerpiece, and in 1970, the necessary legislative framework was created.

Apparently, the package of incentives offered and the political and social stability in Mauritius were very critical to the success of their EPZs. The package offered by Mauritius attracted foreign investors from all over the world, with Hong Kong accounting for about two thirds of investment in the mid-1980s, followed by France. However, particularly in the early stage, nearly all the funds came from domestic sources. The main export markets being the EEC and USA. One of the most attractive aspects of the EPZ was the labour market. The availability of surplus labour was indeed an important incentive, coupled with its geographical location.

In addition to the above, the following fiscal and financial incentives were particularly relevant:

- (a) Income tax relief and exemption from custom duties on EPZ-related imports and exports;
- (b) Infrastructure: The Mauritius EPZ is not restricted to designated industrial estates or enclave – as is typically the case – but is instead dispersed throughout the Island. This arrangement was made possible by the already existing infrastructure, and has benefited investors, workers, and the environment. The majority of firms had ready-made industrial estates at subsidized rates until the mid-1980s, and also enjoyed subsidized electricity tariffs. Progress of the EPZ in Mauritius could be analyzed under four time-frames:
 - (i) *1970-1977*: At the launching of the EPZ legislation, investment, employment and export expanded vigorously, benefiting greatly from high local investments.
 - (ii) *1978-1982*: This period witnessed external and internal problems. Expansion continued but at a much slower pace. The number of

companies fell, but then picked up again while employment slowly rose. For most of these years, foreign investment did not play a major role.

- (ii) *1983-1988: Revival of the boom.* The EPZ once again expanded rapidly. The number of companies surged, employment grew and foreign investment became a major factor.
- (iv) *1988 to date: Consolidation and re-orientation* — a direct recovery in the EPZ performance including strengthening of the textile sector and progress in diversification.

Why the EPZs Work

From the discussion above, it is clear that the level of successes recorded in our case-study countries could be attributed to:

- (a) the normal pre-conditions as stated earlier;
- (b) the macroeconomic conditions and external environment which were found to be critical. They were decisive against a background of political stability, a continuity of social and economic policies and government's unflinching support.

The Nigerian EPZ: The Journey So Far

The urgent question to be asked on the Nigerian EPZ are: Does the country have the normal pre-conditions in place? Are the existing macroeconomic policy mix, political environment and social policies conducive for an EPZ? An attempt will be made in the remaining part of this segment to evaluate these issues. The nature and extent of incentives available in Nigeria's EPZ scheme compares favourably with those provided by EPZ schemes elsewhere, including the case-study countries cited above. However, the task of the Nigerian Export Processing Zones Authority (NEPZA) is to make sure that, in practice, the implementation of the scheme is such that would conform with the provisions of the law and policy intentions.

Concerning infrastructure, communications as well as other support facilities, what Nigeria has on ground presently is less than adequate. Without adequate support facilities and services that are essential to a successful implementation of an EPZ scheme, an industrial establishment in the Zone can hardly succeed. On the basis of this realisation, we should start with a recognition of the traditional spheres of government responsibility which include:

- (i) *Public Security and Maintenance of Law and Order.* The presence of a good security system is a basis for earning public confidence in the efficacy of government machinery in general and its judicial system in particular. Together, they constitute the foundation upon which public confidence in an enduring social welfare is built for the common benefit of the citizenry, and the *sine qua non* of foreign investment to promote and sustain economic development.
- (ii) *Basic infrastructure*, notably in the form of power supply, communications

and transportation. In Nigeria, the central power authority (otherwise known as NEPA) is seen to be among the list of very badly run public entities. NITEL and NIPOST are the main operators in the country's communications sector today, but their services can hardly be described as efficient. Transportation network for convenient, easy and safe access to, as well as inter-changeable links with other locations by road or by water are inadequate.

Judging by the characteristically poor performance of the few examples of our public enterprises discussed above, it could be concluded that successive governments have not successfully managed the affairs of these corporations even if only the quality of services to the public is taken as the yardstick and the return on investment in monetary terms is ignored.

Political stability, though hard to quantify in economics, plays a very vital role in any programme that seeks to attract foreign investors, including EPZs. The purpose of zone demarcation for the establishment of export-oriented industries is to attract foreign investment as an impetus for rapid industrialization of the non-oil export potentials. The main fulcrum on which foreign investment attraction rotates is confidence, nurtured by generous and reliable package of promised incentives that can be reasonably, expeditiously and easily delivered once the conditions are met. To an entrepreneur, confidence means only one thing: safety of his life and investment, coupled with a reliable assurance of his freedom, without let or hindrance, to repatriate his capital and or the return on his investment whenever he wants to on terms mutually agreed, *ab initio*, with the host country, and which term should not be susceptible to unilateral changes by government, irrespective of which particular Administration may be in power at any point in time. Government policies must also be reasonably consistent. Experience have shown that a stable society in a democratic setting under a free-market economy is the most reliable and re-assuring base for investment. A stable political atmosphere is quite easily the most effective and least expensive form of propaganda any country in quest of foreign investment can have. Nigeria can hardly boast of meeting these conditions, especially in recent times.

VI. POLICY RECOMMENDATIONS AND CONCLUDING REMARKS

Policy Recommendations

From our analysis above, it is very clear that Nigeria's EPZ stands to gain from the experience of other countries, especially Taiwan and Mauritius as discussed in this paper. However, in order to fully reap the benefits of these experiences we outline the following recommendations:

- (i) **Infrastructures:** The road network that links Calabar EPZ to both the Northern Nigeria and the West Eastern states should be dualised in order to

cater for the heavy duty vehicles that will be commuting the EPZ, either to deliver raw materials or to evacuate the approved domestic finished product sales to the domestic market.

- (ii) The telecommunications system in Calabar, Uyo, Aba and other major towns around the EPZ should be digitalized to make for easy communication.
- (iii) Facilities at the Calabar international airport should be upgraded in order to accommodate big aircraft from around the world which would either lift the finished product to markets or bring raw materials and or spare parts from abroad.
- (iv) There is also the urgent need to extent the eastern railway lines to Calabar for easy transportation of heavy equipments.
- (v) A major characteristic of all successful EPZs is the existence of credible institutional arrangements to administer the various components of the scheme. Where these do not exist, the prospect of such a scheme are significantly reduced. In this connection, the Nigerian Export Processing Zones Authority (NEPZA) has a crucial role to play in the success of the EPZ programme. Its management and operations should be devoid of the usual bureaucratic bottlenecks. Other relevant government agencies such as the foreign missions and the customs should ensure the existence of an appropriate enabling environment for the success of the EPZ programme through timely issuance of visas and effective monitoring of the scheme for compliance with laid down procedures, etc. Also, the Nigeria Ports Authority should ensure the provision of adequate port services at competitive rates.

Above all, a stable macroeconomic and political environment as well as exchange rate stability have been identified as crucial factors in engendering investors' confidence. Thus, for continuous attraction of foreign investors to the EPZ programme, the current efforts at stabilising the value of the Naira and greater liberalisation of the economy should be sustained.

Concluding Remarks

EPZs now face stronger international competition. This is likely to increase, especially given the new investment opportunities in Eastern Europe, putting even more pressure on existing and new host countries to ensure favourable macro-economic conditions and offer even more generous incentives in financial and fiscal terms. Particular attention will have to be paid to facilitating administrative procedures for investors. In all, Nigeria's EPZ offers one of the best chances for industrial investment in Africa because of its large market, central location, low wage structure, availability of raw materials and the country's membership of ECOWAS.

NOTES:

1. World Bank (1993). *The East Asian Miracle, Economic Growth and Public Policy*, Oxford University Press. p.135.
2. Ibid.
3. World Bank (1993). Policy Research Series, No. 2.
4. Value added in EPZs is commonly around 25 per cent or slightly less, particularly where zones import almost all their material inputs.

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