THE ROLE OF THE STATE IN THE ECONOMIC DEVELOPMENT OF TRINIDAD AND TOBAGO WITH SPECIAL REFERENCE TO THE PETROCHEMICAL SECTOR.

ANN MARIE BISSESSAR AND ROGER HOSEIN.[1]

ABSTRACT

This paper investigates the role of the state in the economic development of Trinidad and Tobago. It examines the shifting role of the state from that of facilitator in the 1950s to the prime mover of the economy during the period 1970 — 1989 and highlights some of the factors that were responsible for this shift. It also evaluates the role of the state in the post 1989 period. Because petrochemical is critical to economic development in Trinidad and Tobago, one of the primary focus of this paper will be to assess the changing policies of the state with respect to this sector. It concludes, however, that while the strategies employed by the state are important in the development process, yet exogenous factors are critical since the prices of products will be largely influenced by global forces.

INTRODUCTION

The existence of oil in Trinidad had long been known or suspected by geologists and scientists, but the oil-bearing districts in the southern part of the island were still mostly covered with thick tropical forest before 1860, inhospitable and fever-ridden; and the oil industry was in its infancy before the development of the internal combustion engine in the 1980s. The first oil well in Trinidad- perhaps the first successful oil well in the world- was drilled by the Merriniac Oil Company of the USA at La Brea in 1857. Oil was struck at a depth of 280 feet, but difficulties in getting capital, as well as the limited demand for oil in the 185 Os, bought the venture to an end with the liquidation of the company around 1859. In *1865* Walter Darwent floated the Paria Oil Company Drilling wells at Aripero and San Fernando in 1866-7, at least three of which struck oil, and by 1867 production was about 60 gallons a week. In the early stages of its life, the petroleum industry was dominated by foreign firms, and to a large extent this is the way it has remained until today,

The aim of this paper, essentially, is to examine some of the main policies that were introduced by the state to maximize and bring about development in the petrochemical sector. The main argument of this paper is that policies of the state particularly as it related to the petrochemical

[1] The order of the authors' names was alphabetically determined.

sector were important for economic development. Yet, what emerges in this paper is that to a large extent many of the economic models introduced by the state over the period 1956 — 1990 with respect to this sector, were inadequate. The reasons for the inadequacy, of course, varied, but the more critical factors were the strategies introduced by the government with along the fluctuation in the prices of this commodity. The paper concludes, then, that while the success or failure of any policy depends partly on the strategies proposed by the state 'yet the critical determinant will be outside agencies such as OPEC or the IMF and the World Bank.

Critics of government, and by extension the state, have provided a long list of its vices: governments act inconsistently, they are inefficient, they are overly conservative, and they employ excessive red tape (Stiglitz, 1989). However, it is also recognized that governments play many roles, some political, some social and some economic. In pursuit of this economic role, the government employs many policy instruments and by so doing it allocates resources, redistributes income and influences the level of activity. As early as 1959, writers have recognized that the state has two major roles in the formulation and implementation of economic policies (Musgrave, *1959)*. The first role, the normative role, determines the guidelines, principles, or norms for welfare-enhancing public sector intervention in the economy. In other words, it attempts to define what the government should do to correct market imperfections and to complement the market in other ways to promote and maximize social welfare. In a sense, the normative role is largely affected by the political constitution of a country.

While the normative role attempts-to define what the government should do to maximize economic welfare, the positive role on the other hand, describes and analyzes what the government actually does (Tanzi, 1997). In reality, the two roles, the normative and the positive would merge. Tanzi (1997) argues that the ideal and the actual roles would become the same because the state would be doing exactly what it is expected to do and all the reforms needed to maximize social welfare would have been carried out. Yet, while the state must achieve a balance between its normative and positive roles, it has been suggested that a number of factors to a large extent influence economic policy decisions. For example, it has been argued that policies are influenced by historical developments; social attitudes, which may be determined by cultural heritage or religion; the level of economic development; the degree of openness of the economy, technological developments; and the quality of public administration (Tanzi, 1997, 7) and more recently globalization.

THE MINIMALIST ROLE OF THE STATE- 1956 — 1969.

There was no doubt that during the period 1956 — 1969, the participation of the state in Trinidad and Tobago as it related to economic development was limited. Indeed, it should be recalled that prior to independence, Trinidad and Tobago was, like a number of other West Indian colonies, under British rule. During this period the role of the British state was minimal and limited to the provision of law and order, security, provision of basic infrastructure and the collection of taxes (Spackman, *1975)*. When Trinidad attained independence in 1962, therefore, a number of factors, understandably, would have led the newly independent government to retain this position. These factors would include:

- The lack of properly trained staff with the capacity to formulate policies.
- The lack of adequate resources.
- The lack of vision on the part of the political directorate.
- The emphasis on what were believed to be far more pressing concerns.

It was not surprising, then, that Trinidad and Tobago, like her Caribbean neighbours embraced the model proposed by Arthur Lewis *(1950)*. Lewis *(1950)* argued that 'Industrialization by Invitation' (TBI) was the appropriate economic solution to problems of 'surplus labor', given the presence of foreign exchange, managerial, technological and market access bottlenecks. He recommended that by focusing on those industries which facilitated a wholesale importation of technologies, capital and managerial skills, these constraints could be overcome and that the principal constraint really lay in the ability to find and penetrate foreign markets.[2] He expressed the concern that due to the small size of the domestic market an inward-looking program of industrial growth would stifle the employment absorption potential of manufacturing firms. Lewis went on to argue that for islands with such small populations:

> "Neither their own growing demands nor the replacement of imports can provide a large enough market. The domestic market for manufactures is too small to support more than a fraction of what is needed" (Lewis 1950, pgl4).

In particular, Lewis emphasized the importance of a well-defined and ready market for exports from developing economies and went so far as to suggest that 'every inquiry into industrialization must begin with the market.'[3]

In *1957*, the government of Trinidad and Tobago, on the prompting of Lewis, established an Industrial Development Corporation (IDC). Lewis felt that an IDC was indispensable for the industrial development of a country. The task of the DC was to assist the government in setting up its production platform and to assist investors (including foreign firms) with their investment problems. He also argued that it was necessary to have a battery of incentives to encourage exporting firms. (See Table 1 for a brief review of some of the incentive legislation offered by the Trinidad and Tobago government, during that period).

---

[2] Lewis argued that because of the tremendous cost of industrialization, the islands of the Caribbean should woo and frawn upon foreign industrialists to encourage them to come into the islands and set up plants.

[3] Lewis (1949, pg.3).

TABLE 1 :LEGISLATION TO FACILITATE INDUSTRIALIZATION BY INVITATION IN T&T.	
Period	Legislation
1946-67	1)Hotel Development Ordinance (1946)
	2)Aid To Pioneer Industry Ordinance *(1950)*
	3)The Income Tax Aid To Industry *(1950)*
	4) Cement Industry Ordinance (1951)
	5) Income Tax In Aid Of Industry *(1955)*
	6)Nitrogenous Fertilizers (Industry And Development Ordinance 1958)
	7)Lube Oil And Greases Development Ordinance (1961)
	8)Petro-Chemicals Industry Development Act (1967)
	9)Tyre Manufacturing Industry Development Act (1967)
Source: Hosein (2001)	

There could be no doubt that the model of Industrialization by Invitation was seen as the most appropriate model by many West Indian colonies not only since it could have facilitated the wholesale importation of skills and technologies but also because it was seen as a mechanism to escape from the five year Economic Programme that had been put in place by the departing legislators. In the case of Trinidad and Tobago, for example, this 'Economic Programme' (1956 — 1960) was criticized on two main fronts. Firstly, it was argued that it was merely a collection of projects put together between two covers whose relation one to another was not immediately obvious. Secondly, it was noted that this programme was' adopted on the death bed of the Legislature' and therefore was, in a sense, a colonial mechanism that was put in place to ensure the maintenance of colonial policies and programmes.[4] It should also be recognized that no economic, fiscal and social survey of Trinidad and Tobago had been attempted and proposals for this kind of research were only recently proposed.

Leaning heavily on the economic model purported by Lewis, then, the state embarked on a number of development projects which represented the commitments which the government had inherited from its predecessor. These commitments were vast and were estimated at $57 million over the five-year period. They included projects such as the Laventille Swamp Road and the Lady Young Road and water projects. Of the $16 million commitments the Government had inherited, water schemes accounted for 40 per cent and electricity over 20 per cent. These commitments, of course, left the state with little room for manoeuvring and for the implementation of its own ideas of development. Indeed, the Minister of Finance pointed out that the only option open to the state was to give higher priority to certain general commitments and by temporarily deferring other projects. He also advised that the provisions made over the year (1957) were no more than token provisions. Among these proposals, however, was the construction of a training college for teachers, the establishment of a technical school in Port of

[4] Republic of Trinidad and Tobago, Budget Speeches 1957-1981, Vol. 1: 1957-1971, Printed by Trinidad and Tobago Printing and Packaging Limited.

Spain, a Secondary school in Princes Town, and a Sports Stadium. With respect to the health sector, there was a proposal to establish a midwifery block at the Port-of-Spain hospital, the establishment of a hospital in Rio Claro, and the construction of accommodation for nurses in San Fernando. Under the item, 'Economic Development', two projects were proposed namely the development of the fisheries industry which included the establishment of a new fish market and the proposal for the construction of a luxury hotel.

There was no doubt, therefore, that the economic policy proposed by the state under the First Five-Year Development Programme was essentially a mechanism by which to improve on the human capital of the country. It was expected that this policy would lead to an increase in job opportunities and would also increase the capacity of employees. In part, also, the investment in human capital was seen as critical in the drive for investment opportunities, since the 'marketability' of the country was an important consideration. Thus, based on this objective, it was not surprising that by 1960, total expenditure, capital and recurrent, had increased from $87.4 million in 1955 to an estimated $155.3 million. In terms of recurrent expenditure, a substantial amount had been allocated to health, education, roads, and re-grading the wages of civil servants. Investment in the sum of $200.4million under development expenditure, on the other hand, was specific to the provision of essential amenities such as water, electricity and transport.[5]

While there was no obvious link between the proposed First Five- Year Development Programme and growth, it was evident that during the period 1951- 1961 Trinidad and Tobago in fact achieved a high annual rate of growth of 11.8%. The reason for this high growth rate, however, was mainly due to the increase in the price of oil. In fact, Gross Domestic Product at current factor cost originating in the oil industry rose from $93.5 million in 1951 to $265.1 million in 1960 an increase of 183 per cent. A number of factors were responsible for this high rate of economic growth over the period 1951-1961 including the relatively stable state of world markets along with the continual expansion in the demands for the products. The high level of demands together with the incentives offered and a stable political environment led to a high rate of investment and consequently a high rate of capital formation.

While the First Five-Year Plan (1958 — 1962) was largely a public sector programme aimed at developing the infrastructure and human capital, the emphases of the Second and Third Five Year Programmes, however, were different. Both the Second (1964 —1968) and Third (1969 — 1973) Five- Year Plans emphasised the need for reducing dependence on the petroleum sector and increasing diversification and self-reliance. Ramsaran (1999) maintained, however, that even in 1964 the development of the industrial sector through the import substitution strategy was a major goal. He observed that a more efficient agricultural sector and an expansion of the tourism industry were envisaged as part of the diversification process and that as far as unemployment was concerned, the Second Plan saw the problem as intricately linked to the problem of transformation and development. He also insisted that it was felt that output could grow without any corresponding growth in the number of jobs and that improvements in general education and in methods of communication were likely to result in a relative decline in self-employment and

---

[5] *Budget Speech* , 6th April, 1962, Trinidad and Tobago, 184.

unpaid family work,.[6]

During this first period the state intervened directly in production activity only when circumstances so warranted. For instance, the Public Transport Service Corporation (PTSC) was created when the government bought out the existing concessionaires and so justified the, need to rationalize public transport. A similar need to rationalize existing services also led to the formation of the Water and Sewerage Authority (WASA) while the Telephone Company had been acquired by the government after a long and bitter strike against the foreign owners. Indeed, between 1956 and 1970, the state acquired and controlled approximately eight enterprises in the economy.

However, it was found that although oil and its by- products were critical to the economic growth of the state, even in this sector the role of the state was limited. For example, prior to the 1950s, the natural gas, which existed in conjunction with crude oil, was traditionally flared or used as a re-injector to assist in the crude oil extraction process. In the 1950's, an attempt to harness this gas was made with the establishment of a fertilizer plant in Point Lisas. By 1968, a vast reservoir of natural gas was discovered, and the government recognizing the obvious potential that existed in resource-based (gas) industrialization projects attempted to redirect some of the wealth that the country accumulated, from the oil sector, into the formation of a few resource based industries founded- on natural gas. Their policy, however, was strictly in keeping with the 'Industrialization by Invitation' strategy since the government's approach to the development of this sector was to invite foreign firms to provide the technology, managerial expertise and market contacts.[7] Indeed, even with the withdrawal of British Petroleum (BP) from the Trinidad and Tobago 'the government was forced into a joint venture with a small American company in order to save jobs and to avoid trade union military.

However, although actively pursued by the government of T&T, the argument of Lewis would come under attack even as early as 1963. By 1963, the weakening of the oil prices, which accounted for over *85%* of the export trade of Trinidad and Tobago, was estimated to lead to a visible trade deficit of $20million. The second, and perhaps, more imminent threat, though, was the entry by Britain into the European Common Market. It was felt that if the doors of the European Common Market countries were either partially or completely shut by high tariff walls or discriminatory tariffs against products from Trinidad, then the prospect for trade expansion would be weakened. By 1969, the fears of the state were realized as the production of crude and natural gasoline in fact dropped from 67.0 million barrels in 1968 to 57.6million barrels. With the falling of crude oil prices, net foreign reserves dropped from TT$129million at the end of 1968 to TT$ 107 million at the end of 1970 and by June 1969, the unemployment rate was estimated to be 14% of the labour force (Ramsaran, 1999, 222). There was no doubt, at this period, then, that the state had to take drastic measures to prevent further economic decline.

[6] Ramesh Ramsaran. 1999. "Aspects of Growth and Adjustment in Post-Independence Trinidad and Tobago," *Social and Economic Studies* 48: 1&2, Special Issue, 220.
[7] Apart from all the associated benefits of gas-based industrialisation, Auty et al.(1986) also noted that there was another underlying factor and this was: "A strong nationalist appeal in the prospect of leaping from a plantation economy to a technologically sophisticated state."(Auty et al. 1986, pg.1171).

TAKING OVER THE COMMANDING HEIGHTS OF THE ECONOMY: STATE PARTICIPATION IN THE ECONOMY (1970 — 1989).

Throughout the 1960's policy makers more directly concerned with development policy shared a consensus favoring state intervention, based on different but related criteria. The Keynesian revolution which cast doubt on the market ability to achieve dominant results was used to legitimize economic planning. Keynes's emphasis on domestic economic prosperity as opposed to international concerns was extended to support national industrialization strategies in Third World. Scitousky *(1954)*, another writer in this period, also proposed that the condition required for the price mechanism to achieve optimal dynamic allocation was what he termed "complete open tradability." The work of other authors such as Prebisch (1956) and Singer *(1950)* also reinforced the view that growth could only be achieved by introducing complete tradability, and, in the context of the Black Power uprising and partly as a result of the influence of the New World Group(NWG) consisting of a number of black academics, the government of T&T sought to takeover the community heights of the economy from foreign firms. Yet, it should be noted, that even at that time empirical studies had revealed that the conditions for this kind of economic policy did not obtain in the Less Developed Countries such as Trinidad and Tobago as many of these economies were plagued with structural true opportunity costs.

Irrespective of what may be termed 'hard data' however, a wave of nationalization programs would follow, with the oil boom providing the resources for greater government involvement[8]. The New World Group (NWG) expressed their discontent with the Lewisian proposition of "industrialization by invitation" and cited the multinational corporation (MNC) as being representative of the metropolis and merely extending the colonial legacy (Best 1969). Identifying with the problems induced by slavery and indentureship, the NWG suggested that an end to 'persistent poverty' lay in de-emphasizing foreign capital. Two of the main proponents of this perspective, Best and Levitt (1969), argued that Lewis's propositions were ill-suited to the needs of the Caribbean and his model was alien to the operational structure of the production unit in the West Indies - the plantation.

Also, and as Ryan (1968) would point out, they (the NWG) perceived that:

"the tax concessions made to these fugitives from the law of the land of diminishing returns on the mainland are too generous, and they fear that many of them will migrate once the 'tax holiday" period is over, thus making the sacrifices in terms of revenues "lost" worthless." (pg.196, emp. added).

---

[8] See Sargeant and Forde (1992) for a review of the government's involvement in the industrial sector of Trinidad and Tobago.

In this context they argued that the Lewisian IBI strategy was destined to fail and they clamored for greater government control over the commanding heights of the economy. The urgings of this group and the social upheaval in the country thus partly provided the impetus for the ushering of a new economic strategy on the part of the state. Commencing with their Third Five-Year Development Plan (TFYDP), the government ushered in new policies to regulate the behavior of MNCs. In particular, the TFYDP proposed that MNCs be more flexible and disallowed from having sole proprietary ownership in areas considered to be the commanding heights of the economy.

It should be noted, however, that even before 1970, the state had already increased ownership in several sectors in the economy and this was intensified in the 1970s. By 1974, therefore, the government fully embraced the notion of public ownership under the guise of localizing the economy, accelerating the development process, rationalizing the provision of public services, and aiding the development of non-traditional production sectors. Adams, Mistry and Cavendish (1992) observed that somewhat fortuitously, the changes in the economic policies coincided with the rapid expansion of government revenues consequent on the 1974 increase in the oil price and the discovery of new natural gas reserves. Thus the government was able to put its plans into effect and the State-Owned Enterprise Sector was expanded throughout the 1970s and early 1980s through a policy of both nationalization and government-backed creation of new industries. In 1973, for example, the total expenditure on the acquisition of assets and public participation amounted to $24.4 million; the principal payments included were:

(a) the *50%* shareholding in the telephone company formerly held by a foreign company;	$	14.8 million
(b) the *52%* government participation in the flour mill;	$	2.1 million
(c) the 21% participation in the National Fisheries Company;	$	0.6 million
(d) the payment of interest and the annual installment on the acquisition of 21% of the shares in Caroni Ltd.;	$	1.5 million
(e) the 10% participation in Maritime Life Caribbean Ltd.;	$	0.6 million
(t) the part payment in respect of the acquisition of the petrol filling stations formerly owned by British Petroleum;	$	0.5 million
(g) the part payment in respect of the acquisition of 50% of petrol filling stations formerly owned by Esso;	$	1.3 million.

Souice: The Budget Speech, 5th January 1973, 563.

These assets were all vested in companies which were expected to operate under commercial criteria and were regulated by the White Paper on Public Participation. The justification for such a venture was that the Government had participated in certain companies during the last two years and they had shown considerable experience. They hoped therefore, that this improvement would become the general experience. It should be pointed out, however, that while the state was involved in this kind of activity, this was not without costs to the government. For instance the gross public debt of the country at the end of 1972 was estimated at $536.lmillion; locally held debt amounted to $344.0 million while foreign held debt amounted to $202.1 million. At the end of 1972 the net public debt stood at $466.1 million. The cost of servicing the debt in 1972 amounted to $5O6million; local debt service cost $30.7million and external debt service cost $19.9million. (Budget Speech, 1973, 567).

By 1974, a number of developments and changes had taken place in the domestic and international scene. These changes included:

- The rise in the price for petroleum.
- Increasing prices for essential imports.
- The increase in the wage bill.
- A drought which affected agricultural production.

In order to combat these unexpected challenges, the state proposed to. take action in three areas:

- The introduction of careful licensing procedures to minimize the use of foreign exchange on essential imports and investments outside the Carifta/Caricom area.
- To elicit a greater export effort from manufacturers who enjoyed duty free concessions on raw materials.
- To adopt new procedures which would ensure that the country received and had available for use of all earnings from exports.

It was felt that these procedures would strengthen the external reserve position. It was also felt that the state needed to be involved in five main areas of activity including efforts to keep down the cost of living and increase the domestic food supply; to accelerate the improvement of certain basic facilities and amenities; to retire short term debts; to establish or increase funds for the long 'term restructuring of the economy and to fund a programme of training. In other words, the state had become involved in all aspects of the economy.

Indeed, by 1985, the government was the majority shareholder in 48 firms, in 37 of which it owned 100% equity. By 1986, the total value of the government's shareholding had reached over TT$4bn (excluding the utilities) and some of the companies were significantly larger than the largest in the private sector. The SOE accounted for a substantial proportion of GDP: in 1985, the total value added of the state enterprises and public utilities was TT$2.9bn or some 16% of GDP. In the same year, total employment in the sector was 53,700 or 13% of total formal sector employment and capital investment was TT$lbn or 26% of national capital investment (Adams et al, 1992, 182). The sectoral distribution of the majority-owned SOEs indicated that the government had achieved its aim and had taken over the 'commanding heights' of the economy. The state had acquired enterprises in sectors which previously had been under foreign ownership such as petroleum, agricultural and financial enterprises. It was suggested that the expansion of ownership occurred in two ways. The government used windfall revenues for industrial diversification. Substantial investment funds were committed by the government with an estimated US$1.5 billion spent on establishing the various projects.

With respect to the petroleum and petrochemical sector, it was clear that the state was also fully involved and had taken over control of this sector as well. In 1975, for example, the government concluded agreements with W.R.Grace to build a large ammonia plant. It also co-partnered with three steel firms to build a large steel unit and in 1976 an agreement was signed to establish a joint Amoco fertilizer plant. By 1977, however, the government eventually withdrew from the joint steel venture and began a steel venture of its own — the Iron and Steel Company of Trinidad and Tobago (ISCOTT). There was little doubt that these decisions on the part of the state were partly politically motivated. Ramsaran (1993), for example, argued:

"in a democratic setting there are certain constraints to economic management and optimai resource allocation. Playing to the public gallery to get elected is part of that process." [Ramsaran 1993, pp. 239J

By 1986, the government had set up three nitrogenous fertilizer plants, with 51% shareholdings in two, and complete ownership of the third. In addition, they had complete ownership of the steel plant, a methanol-producing firm and a natural gas transmission company.[9] The table below provides a list of some of those resource based petrochemical firms in which the state played a major role.

TABLE 2: STATE LED PETROCHEMICAL INVESTMENTS IN T&T.

1956	FERTRIN	Ammonia	State as a majority partner
1977	TRINGEN	Ammonia	State as a majority partner
1980	Iron and steel Company of T&T	Direct reduced iron, steel billets, wire rods.	State 100% owner
1981	Arcadian	Ammonia	State 100% owner
1984	T&T Urea Co.	Granular Urea	State 100% owner
1984	T&T Methanol Co.	Methanol	State 100% owner
1988	TRINGEN II	Ammonia	State as a majority partner

Source: compiled from various issues of the Review of the Economy.

Yet by the early 1980s it had become increasingly clear that the SOE sector was not operating as had been intended. For example, the public utilities had a cumulative deficit of TT$900m between 1974 and 1979. With the collapse of the fiscus after 1982, such deficits became an excessive burden on public finances In February 1982, the Minister of Finance and Planning embarked on a programme to ire-assess the country's development strategy and financial management and control and a Task Force was appointed in February 11, 1982. The mandate of this Task Force was to formulate a properly articulated medium term public sector investment programme to be followed by a more comprehensive multi-sectoral plan.

[9] Lewis has also noted that it is sometimes necessary for the government to provide an infrastructural start up base for an industry or group of industries before allowing others, including foreign MNC's to come forward and take over.

The Task Force, from the outset summarized a number of structural weaknesses which had impacted on the economy. These weaknesses included: domination of the economy by oil; heavy dependence on imported food; the consequent lack of diversification of the production and export structure; a wage and salary level more appropriate to the petroleum industry than to other sectors of the economy; and a high level of open unemployment. While it was recognized that the oil boom had had a favourable impact, the Task Force noted that there were a number of fall-outs as well. These included:

- The overheating of the economy.
- The weakening of both domestic and export agriculture.
- The rise in the level of income.

The Task Force recommended that with respect to the petro-chemical industry that the route that provided either the most promising prospects lay in utilizing methanol and urea as basic feedstock for further processing to produce for example, paints, acrylics, urea and formaldehyde. In summary, however, they advised that the national economy should no longer be dominated by petroleum but that the state should establish a diversified base for production and export.[10] It was clear that the members of the Task Force were, however, advocating even at this time that the state move away the responsibility of controlling the economy. They advised that there should be:

"*(13)* A t9ixed economy(*giving* ample scope for a more entrepreneurial national private sector) with new and creative forms of organization (such as partnerships between local and regional private capital, extra-regional official and private capital and State capital). In this mixed economy there would be continuing Government support for smaller enterprises which *make* the fullest use of creative energies and talents of people.

(14) A national private sector that is more disposed than at present to take risks, to be innovate and to wait longer for profits (of which a large part would be re-invested) and with a much stronger involvement in agriculture, industry and tourism as opposed to commerce, distribution and other activities that do not earn foreign exchange. In other words a truly entrepreneurial group of persons in the country."[11]

The ideology of controlling the *commanding heights of* the economy became even less attractive in the 1980's, though, when the Trinidad and Tobago economy plunged into a deep recession. By 1989, the state had to resort to borrowing from the International Monetary Fund and the World Bank. Funding, however, was contingent on the introduction of certain measures including the removal of tariffs and the liberalization of the. economy. In what may seeming be referred to as a 'round robin' the state was once more returning to its facilitatory role and after 1989 many of the assets of the state were privatized to both local and foreign players as its followed the minimalist dictates of the multilateral agencies (see table 3).

---

[10] *Draft Development plan 1983-1986.* Government of Trinidad and Tobago.

[11] Ibid, 5.

TABLE 3: CHANGES IN THE OWNERSHIP STRUCTURE WITHIN THE PETROCHEMICAL SECTOR AFTER 1988.

1989	Caribbean ISPAT	Direct reduced iron, steel billets, wire rods	Privatizatioü of state owned steel plant to foreign investor
1990	Hydro Agri	Ammonia	Privatization of FERTRIN to foreign investors
1991	Phoenix Park Gas Processors	Propane, Butane	NGC and two foreign investors
1993	Caribbean Methanol	Methanol	Local private company and foreign investor
1994	NUCOR	Iron Carbide	Direct investment by a foreign investor
1996	T&T Methanol Co.	Methanol Ammonia	Privatization to Local-Foreign private sector partnership
!996	PCS Nitro en II	Ammonia	Foreign investors
1997	PETROTRIN	MTBE	State Sector Oil Company
1998	PCS Nitro en IV	Ammonia	Foreign investors
1998	Farmland Mississippi Chemical	Ammonia	Foreign investors
1998	Methanol IV	Methanol IV	Local-Foreign private sector partners
1998	ISPAT Upgrade	DRI	Foreign investors
1998	Cleveland Cliffs	DRI	Foreign investors
1999	Atlantic LNG (train 1)	LNG	Foreign investors

Proposed

Aluminium Smelter Project

The Southwire Consortium whose proposal is to construct a US$990 million aluminum plant with an initial capacity of 160,000 tonnes per annum with the possibility of a further expansion of 240,000 tonnes per annum

Reema Project — Gas to Liquids Conversion

- MOU signed
- Site selection in progress
- Gas contract under negotiation

Atlantic LNG 11 and Ill

- The Government of Trinidad and Tobago (GOTF) signed an agreement to facilitate the expansion of the US$1.1 billion liquefied natural gas plant at Point Fortin. Under this agreement two new trains (plants) of the Atlantic Liquefied Natural Gas (LNG) facility at Point Fortin will be added to the plant already in existence. This will triple the production and export of LNG from three million tonnes to nine million tonnes per year by the year 2003.

Ethane Complex

- Project agreement signed between NGC and Phoenix Park
- Interim work continued between NGC and PPGPL
- Additional partners being attracted before implementing study

Establishment of two more world scale ammonia plants. Caribbean Nitrogen Company (CNC) commercial construction of an 1850 tonnes per annum plant and is scheduled to commence production in June 2002. CNC vill commence construction of another plant in the last quarter of 2001.

Establishment of two more world scale methanol plants.

Establishment of a US$1bn aluminum smaller plant.

Source: Hosein 2001.

EXCESSIVE STATE INVOLVEMENT — A RETURN TO THE MINIMALIST STATE (1989 TO PRESENT)

It was more than obvious that during the period 1970 to 1989 the state had adopted strategies in which it was assumed that it had unlimited capacity to intervene in the economic system. However, the failure of the state to carry out its assigned developmental role was all too apparent and it was clear that the second experiment of 'taking over the commanding heights of the economy' had failed. One writer, Barner (1972, 1984) was prescient in pointing out what he perceived to be the problems. Generalizing from his experience in India, he had articulated most of the 1980's vintage criticism of an expanded public sector 20 years before. He not only considered government failure, i.e. corruption and mismanagement more critical than market but reversed the direction of causality: intervention caused and did not curve market imperfection. Implicitly he assumed that the market mechanism was capable of self-correction. Bauer was especially fearful of the adverse political consequence he thought was associated with concentration of economic power by the state. It should also be recalled that the neoclassical political economy of the 1980's explicitly attacked the arguments by the early development economists in the efficacy of government intervention. Lal (1983), and others writers for example, contended that bureaucratic failure was worst than 'market failure'[12]

In what seemed to be a turnaround of the former strategy of taking over the 'commanding heights of the economy', the state adopted another approach, one that had been first tested under the Puerto Rican model of Industrialization by Invitation. This approach was generally referred to as *"Resource Based Industrialization* (RBI)." A 'RBI' strategy is basically one in which the focus of the industrialization effort is on extending the chain of value by undertaking some degree of processing activity associated with indigenous resources which would otherwise have been exported in a crude form. The benefits of RBI are basically the same as those from manufacturing exports. Thus RBI exports help to contribute to the expansion of industrial knowledge and skills. In those instances where resource based (RB) industries are integrated into the domestic industrialization fabric it can act as a catalyst for removing the binding constraints that small domestic market size imposes, as the success of manufacturing activities in particular is closely aligned to the scale of operation practiced. Scale economies can be obtained through a number of alternative avenues one of which is international specialization that forgoes producing at less than optimal scale for a restricted domestic market.

RBI falls under the umbrella of International Sub-Contracting (ISC).[13] ISC refers to a situation in which transnational corporations (TNCs), use LDCs as production platforms for parts or even entire products which are in turn used to covet advanced country markets. In support of RBI strategies' one can draw from the research of Dodaro (1991), who noted:

---

[12] Srinivasan (2985) classifies this effort according to Olson's (1982) collective action framework, Buchanan's (1980) public choice school and Kruger's (1984) rent seeking behaviour.
[13] See Lansberg (1979) for a more detailed discussion on ISC.

"The level of primary commodity processing is an important issue in assessing the composition or structure of exports. By increasing the level of processing inherent in their export basket, LDCs may not only gain as a consequence of greater value added but may also take advantage of the opportunity to industrialize. Indeed, the availability of the raw material resources generally confers a natural competitive advantage to LDCs in ninny processing activities, particularly at the earlier stages of processing and in the case of homogenous intermediate goods" (pg. 1158).

It should be noted, however, that the RBI effort may be motivated by internal, external or both internal and external efforts. When confronted with the concept of RBI using external assistance, Lewis (1950) in his policy advice to Caribbean countries recommended:

"....it is hardly possible for the islands to break into the market in competition with existing suppliers. Breaking into a market involves great expenditure on sales promotion, to establish new trade channels, and this would hardly be worthwhile for the limited amount of trade that the islands would do. The moral of this is that what should be done is to try to persuade existing suppliers, with established distribution channels . to open factories in the islands to supply their trade (Lewis 1950, pg. 31)[14]

Thus, as Lewis argued, even in a small island state there existed the potential for a policy which would help to articulate the thrust and scope of the external sector.[15] It was this policy that the government of Trinidad and Tobago adopted and implemented and which in essence seemed to be sound. Ramsaran (1999) for instance pointed out that since 1987, the petroleum industries have generally maintained their share in total real output, averaging 26% between 1987 and 1996. He observed, also, that there has been some diversification based largely on activities in the gas sector which has attracted most of the foreign direct investment. He also observed that while the share of petroleum in exports has fallen to under 50% as compared to over 70% in the mid 1980s, chemical exports have increased steadily since the 1980s accounting for 24% of total exports. (Ramsaran, 251).

It should be noted, however, that even though an 'RBI' strategy was employed, the government of Trinidad and Tobago at present maintains a strong investment and has direct control of three energy sector companies, vis the Petroleum company of Trinidad and Tobago (Petrotrin), the National Gas Company (NGC) and the National Petroleum Marketing Company (NPMC). These companies though autonomous in operational matters have been accorded the responsibility to implement government's policy in the energy sector and are expected to perform with the highest level of efficiency. In order to bring about the kind of efficiency demanded, though, it has been suggested that fundamental restructuring will be instituted at the NPMC as a result and that

[14] This is Lewis's much discussed 'Industrialization by Invitation' thesis.

[15] The RBI literature, although still in its infancy has benefited from the following noteworthy contributors, Roemer (1977), Singer(1978), Yeats (1991) and Londero and Teitel (1996).

Petrotrin will be required to develop, formulate and implement strategies to turn around its decline and guarantee its long-term viability.[16]

Essentially, however, much of the remaining energy sector is primarily administered by the MEEI whose portfolio encompasses the following:

i. the management and regulation of oil and gas operations, upstream and downstream, marketing activities and the petroleum service industry;
ii. the development and implementation of a wide range of policies related to the energy sector, vis fiscal, environmental, pricing and industrial;
iii. policy management and control of the state-owned energy based companies(Green Paper 1998).

What becomes evident, though, in assessing the strategy employed by the government in the petro-chemical sector is that the massive increase in oil revenues for the T&T government was the outcome of two factors: a dual increase in both prices along with an expansion in the level of production. Thus the strategies of the state were critical in the growth and development of this sector. For example, the natural gas sub-sector has been developed at some cost to the country as a result of certain concessions and amenities granted to investors which included the following:

i. relatively attractive natural gas prices
ii. fiscal concessions such as tax holidays, duty exemptions and other incentives.
iii. provision of infrastructural facilities such as industrial sites, harbor facilities, utilities and telecommunications.

With respect to the methanol and ammonia industries, however, it has been proposed that since they are now mature industries the government will no longer provide the level of concessions and incentives that these industries received in the past. The government will focus on and provide greater support to natural gas based industries which add greater value further downstream. It will deepen linkages with the domestic economy through spin-off industries and the utilization of services, contribute to permanent employment generation and make a greater contribution to the country's tax revenue base (Green Paper 1998).

It is clear, that the nature of the natural gas industry, in which supply is a direct function of demand, dictates that upstream and downstream development be coordinated. At present, upstream development is being promoted by efforts to increase the acreage under exploration and production, while downstream developments include the expansion of petrochemical production and high fuel consumption industries, such as smelters and furnaces. The state has agreed therefore that MEEI will continue its collaborative efforts with the NGC to promote the

[16] According to the MEEI, 13 production sharing contracts had been allocated between 1996 and 2000. Exploratory work was carried out under 8 of the contracts with 6 resulting in major gas successes. Under a production sharing contract, the government retains ownership of the oil and/or natural gas produced and the government collect taxes and a portion of any profits made. Under the tax and royalties acreage agreement, the acreage is leased to the company and the government collect taxes and royalties from the revenue.

continued growth in natural gas based investments and provide overall policy direction and support.

CONCLUSION.

This paper examined the role of the state in the economic development of Trinidad and Tobago, but more particularly with respect to the petrochemical sector, during the period 1956 — 2000. The paper was divided into three main period or phases ; the first 1956 —1969 in which the state took a minimal part in the economy; the second period 1970 to 1986 in which the state took over the commanding heights of the economy; and the third and present phase in which the state has once more returned to its facilitating position. During each of these phases, it was evident that the state was influenced largely by external actors, in some cases, the academics or theorists in the field or more recently by the International Fund and the World Bank. It was obvious, then, the strategies or policies that were introduced by the state were largely in keeping with the policies that were applied uniformly to both the developed and the developing countries. The problem in the case of countries like Trinidad and Tobago, however, was that sometimes the basic infrastructure and the culture that was necessary for such policies to succeed were largely absent. Thus, as was obvious during the period 1970 —1986, although the state was willing to take a major part in the economy, the necessary pre-conditions for success were absent. As a result any policy or strategy introduced by the state was doomed to fail. Another consideration, of course, and one that has been highlighted in another context more recently by Ramsaran (1999), is that supply in a critical sense is exogenously determined, often dependent on a range of factors outside the control of the national authorities. Thus as he noted, adverse movements in the terms of trade can have a catastrophic effect and any fall in supply however temporary tends to be seen as a crisis. What does this suggest for any economic strategy or the role of the state? Indeed, in what may be perceived as a depressing conclusion, it is more than obvious that while state involvement, whether as a paternal state or facilitating state is critical, what is also critical is a readily available market.

REFERENCES

Adam, Christopher, William Cavendish, and Percy S. Mistry,1992, *Adjusting Privatization,* Jamaica: Ian Randle.

Amin Gutierrez de Pinieres, S. and Ferrantino, M. (1997), 'Export Diversification and Structural Dynamics in the Growth Process: The Case of Chile,' *Journal of Development Economics, Vol.52, pp.375-391.*

Auroi, Claude, 1992, *The Role of the State in Development Process,* London: Frank Cass and Co Ltd.

Auty, R and Gelb, A (1986), "Oil windfalls in a Small Parliamentary Democracy: Their impact on T&T, *World Development,* "Vol. 14, #9, pp. 1161-1175.

Beckford, G. (1972), *Persistent Poverty,* New York: Oxford University Press.

Bender, I., and Rowthorn, R., (1998), 'De-Industrialisation: The Case of Iceland,' Paper Prepared for the Federation of Icelandic Industries, Iceland.

Bernal, R., Figueros, M. and Witter M. (1984), 'Caribbean Economic Thought: The Critical Tradition,' *Social and Economic Studies,* Vol. 33, No.2 pp.5-96.

Best, L (1969), "A model of Pure Plantation Economy," *Social and Economic Studies,* Vol. 12, #3.

Best, L. and Levitt, K. (1968), *Export Propelled Growth and Jndustrialisation,* Mimeo, Montreal, Centre for Developing Area Studies, Mc Gill University.

C.S.O. and Central Bank of T&T, (various years), 'The Balance of Payments Yearbook,' Government Printery, P.O.S.

C.S.O. of T&T (Various Years), 'The National Income of T&T,' Government Printery, P.0.5.

C.S.O. of T&T (various years), 'Annual Statistical Digest,' Government Printery, P.O.S.

Carrington, E. (1967), 'The Post-war Political Economy of Trinidad and Tobago,' in Girvan, N. and Jefferson, 0., (eds.,) *Readings in the Political Economy of the Caribbean,* N.W.G., Jamaica.

Central Bank of T&T (1989), *Handbook of Key Economic Statistics,* Central Bank, P.O.S.

Central Bank of T&T (various years), 'Annual Economic Survey,' Central Bank, P.O.S.

Corden, W (1984), "Booming Sector and Dutch Disease Economics: Survey and Consolidation," *Oxford Economic Papers,* 36, 359-80.

Datta , Chandhuri, M. (1990), "Market Failure and Government Failure," *Journal of Economic Perspectives,* Vol. 4, #3, pages 25-39.

Demas, W. *(1965), The Economics of Development in Small Countries with Special Reference to the Caribbean, Montreal,* Mc Gill University Press.

Demas, W. (1976), The Political Economy of the English Speaking Caribbean: A Summary View, Caribbean Ecumenical Consultation for Development, *Study Paper* #4, Barbados.

Farell, T. (1980), 'Arthur Lewis and the Case for Caribbean Industrialisation,' *Social and Economic Studies,* Vol.29, No.4.

Gelb, A, (1988), *Oil- Windfalls: Blessing or Curse?*, Oxford University Press.

Girvan, N. (1971), *Foreign Capital and Economic Underdevelopment in Jamaica.* Kingston, Jamaica: Institute of Social and Economic Research, UWI.

Goudie, A.W., and Meeks, G., (1991), 'The Exchange Rate and Company Failure in Macro-Micro Models of the UK Company Sector,' *Economic Journal,* Vol. 101, pp. 444457.

Government of T,&T (1981), *White Paper on Natural* Gas, Government Printery, P.O.S.

Government of T&T (1983), The ImperaTives of Adjustment: Draft Development Plan 1983-86, Report of the Demas Task Force Appointed by Cabinet to formulate a Multi-Sectoral Development Plan for the Republic of T&T, P.0.5.

Government of T&T (1997), *Medium Term Policy Framework: 1 998-2000,* Ministry of Finance, P.0.S.

Government of T&T (various issues), *'Budget Speeches',* Government Printery, P.0.5.

Government of T&T (various issues), 'Review of the Economy,' Ministry of Finance, P.0.S. Government of T&T. (1963), *Second Five Year Plan* , 1963-67, P.0.S.

Government of T&T. (1957), *First Five Year Plan,* 1958-62, P.O.S.

Government of T&T. (1968), *Third Five Year Development Programme,* 1968-72, P.O.S.

Government of T&T. (1972), 'White Paper No2. on Public Sector Participation in Industry,' Government Printery, P.O.S.

Government of T&T. (1975), 'White Paper No3. on Public Sector Participation in Industry,' Government Printery, **P.O.S.**

Government of T&T. (1980), *Accounting/or the Petrodollar,* Government Printery.

Hiliare, A. (1989), *Economic Reaction to a Sectoral Boom: Trinidad and Tobago (19 73-1985),* Phd Dissertation, Columbia University.

Hiliare, A. (1992), 'The Effects of Trinidad and Tobago's Oil Boom on Relative Prices, Wages and Labour Flows,' *Social and Economic Studies,* Vol. 41:2, pp.45-82.

Hosein, R and B. Tewarie (2001), Service Exports and Economic growth in an Oil Rich Economy: A case study of Tourism in Trinidad and Tobago (T&T), forthcoming.

Julien, K.S., and Boopsingh, T.M. (1996), The Management of Energy Resources: The Experience of T&T; *1974-95,* UWI, St Augustine.

Lewis, A, (1949), "Industrial Development in Puerto Rico," *Caribbean Economic Review,* Vol. 1, #1 and 2.

Lewis, W.A. (1950), 'Industrial Development of the British West Indies,' *Caribbean Economic Review,* Vol.2, pp.1-61.

Lewis, W.A. (1954), 'Economic Development with Unlimited Supplies of Labour,' Manchester School of Economic and Social Studies, Vol.22, pp.139-91.

Lucas, R.E. (1988)), 'On the Mechanics of Economic Development,' *Journal of Monetary Economics,* 22, pp.3-42.

Lucas, R.E. (1990), 'Why Doesn't Capital Flow from Rich to Poor Countries?' *American Economic Review,* 80, pp.92-96.

McIntyre, A. (1992), 'Trade and Economic Development in small Open economies: the case of the Caribbean countries (Jamaica, Trinidad and Tobago and Barbados), PhD Dissertation, University of Toronto.

Mcintyre, A. (1994), 'Building National Consensus in Trinidad and Tobago,' 1DB, Washington.

Musgravc, Richard, A, *1959, The Theory of Public Finance,* New York: McGraw Hill.

Neary, P., and van Wjnbergen S. (1986), *Natural Resources and the Macroeconomy,* MIT Press, Cambridge, MA.

Nunes, R (1993), 'State Policy and the role of private foreign investment — AT&T perspective,' in R. Rarnsaran ed. *Caribbean Economic Policy and South South Economic Cooperation,* Mac Millan Press, London.

Pantin, D. (1988), 'Wither Point Lisas: Lessons for the Future,' in Ryan, S. (ed.) Trinidad and Tobago: *The Independence Experience,* 1962-87, ISER, Trinidad.

Pantin, D.A. (1992), *The Impact of Trade Liberalisation on the Import Competing Sectors of Trinidad and Tobago with Particular Reference to the Manufacturing Sector,* T&T Manufacturing Association, P.0.S.

Pantin, D.A. (1993), 'The Political Economy of the Natural Resource Rich Renteir State: The Case of Oil and Natural Gas in Trinidad and Tobago, in Lalta, S., and Freckleton, M., *Caribbean Economic Development: The First Generation,* Ian Randle Publishers. Jamaica.

Pollard, H.J., *(1985),* "The Erosion of Agriculture in an Oil Economy: The case of export crop production in Trinidad," *World Development,* Vol. 13 #7, pp. 8 19-837.

Prebisch, R. *(1956),* 'Commercial policies in the underdeveloped countries,' *American Economic Review,* vol. 49, pp. 257-269.

Ramsaran, Rarnesh, 1999, "Aspects of Growth and Adjustment in Post- Independence Trinidad and Tobago, *Social and Economic Studies,* 48: 1&2, Special Issue: 215 —286.

Ramsaran, R.F. (1993), 'Growth and Adjustment in a Petroleum Based Economy: Some Aspects of the Trinidad and Tobago Experience since the 1970's, *Social and Economic Studies,* Vol. 42:4, pp.217-240.

Roemer, M., (1977), 'Resource-Based Industrialisation in the Developing Countries: A Survey of the Literature, Development *Discussion Paper* No. 21, Harvard Institute of International Development, Cambridge.

Roxner, P.M. (1994), 'The Origins of Endogenous Growth,' *Journal of Economic Perspectives,* Vol.8, No.1, Winter, pp.3-22.

Romer, P.M. (1995), 'Idea Gaps and Object Gaps on Economic Development,' *Journal of Monetary Economics,* Vol.32, Dec., pp. 543-73.

Romer, P.M. (1996), Why, Indeed, in America? Theory, History and the Origins of Modern Economic Growth, National Bureau of Economic Research, *Working Paper*, #5442.

Rowthorn, R. and Ramaswammy, R. (1997), 'De-Industrialisation: Causes and Implications,' *IMF Working Paper* 97/42, Washington, DC: International Monetary Fund.

Rowthorx, R.E. and Wells J.R., (1987), *Deindustrialization and Foreign Trade,* Cambridge University Press.

Ryan, S. (1968), 'Restructuring the Trinidad Economy,' in N. Girvan, ed., *'Readings in the Political Economy of the Caribbean,* 'Kingston, Jamaica.

Sachs I. and Warner A.M., (1985), "Natural Resource Abundance and Economic Growth," *NBER Working Paper,* 5398.

Sargeant, K., and Forde, P. (1992), 'The State Sector and Divestment in Trinidad and Tobago: Some Preliminary Findings,' *Social and Economic Studies,* Vol. 41:4, 173-204.

Scitorsky, T. (1954), 'Two concepts of external economies,' *Journal of Political Economy,* Vol. 62,pg 143-151.

Singh, A., (1977), 'UK Industry and the World Economy: A Case of De-Industrialisation?' *Cambridge Journal of Economics,* Vol. 1, No. 2. (June).

Singer. H. (1950), 'The distribution of gains between investing and borrowing countries,' *American Economic Review,* vol. 40, pp.473*—485.*

Stiglitz, Joseph et al, 1990. "The Economic Role of the State", edited by Arnold Heertje, Oxford, USA: Basil Blackwell Ltd. edited by Arnold Heertje, Oxford, USA: Basil Blackwell Ltd.

Tanzi, Vito, 2000, "The Role of the State and the Quality of the Public Sector," *IMF Working Paper*

Tanzi, V, 1997, "The Changing Role of the State in the Economy: A Historical Perspective, *IMF Working Paper.*

Tanzi, V. (1982), "Fiscal Disequilibrium in Developing Countries," *World Development,* Vol. ID, #12, pp. 1069-82.

World Bank (1974), Economic Position and Prospects of Trinidad and Tobago, *Country Programs Departments,* Report No. 435a-TR.

Worrell, D. (1982), 'Industrial Policies and Economic Growth,' *Social and Economic Studies,* Vol. 31, No.4, Dec.

Worrell, D. (1987), *Small Island Economies,* New York, Praeger.