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INDUSTRIAL DEVELOPMENT STRATEGIES  
IN CARIBBEAN COUNTRIES

TRINIDAD AND TOBAGO

Prepared by  
Eric St. Cyr  
Consultant

(In collaboration with the staff of the Trinidad  
and Tobago Institute of the West Indies)

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This monograph on the Industrial Development Strategy of Trinidad and Tobago has been prepared for the CEPAL Office for the Caribbean by Mr. Eric St. Cyr in his personal capacity. The views expressed are those of the author and do not necessarily reflect the views of CEPAL.

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TABLE OF CONTENTS

	<u>Page</u>
I. Introduction - Origins of the Development Strategy	1
II. The Manufacturing Sector in the Trinidad and Tobago Economy	14
III. Strategic Choices in Industrial Policy: Lessons of the Pre-1973 and Post-1973 Periods	21
IV. Appendices: I - V	34
V. Tables - 1 - 12	43

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## INTRODUCTION

### Origins of the Development Strategy

#### 1.1 Background

1.1.1 The twin island state of Trinidad and Tobago emerged from British colonial rule at Independence in 1962 and adopted a republican constitution in 1976. With a total land area of 1,980 square miles (5,128 km<sup>2</sup>) and an estimated population of 1.2 million in 1980, its per capita GNP in 1976 was US\$2,240. Until the discovery of oil in 1907 this was a typical agricultural colony producing tropical staples for export to metropolitan centres. By contrast with the older, declining sugar economy in Tobago, Trinidad was only opened up in the latter part of the nineteenth century, so that its plantation and sugar manufacturing technology was relatively modern. The oil industry added a measure of industrial diversification to the economy in the twentieth century and formed the basis of relative prosperity. As late as 1844 the population of Trinidad and Tobago was a mere 73,000. This was however to change rapidly, mainly on account of indentured Indian immigration (1845-1917), so that by 1901 the population was 274,000 and 563,000 by 1946. This is evidently a country of new settlement, rapid population and industrial growth and a land of opportunity.

## 1.2 The Problem

1.2.1 Fortunately it is no longer necessary to make the case for industrialization. With rapidly growing populations and consequent urbanization, the provision of the requisite infrastructure and utilities for civilized living has made the development of secondary industry a social imperative. The pioneering work of Colin Clark<sup>1/</sup> had established, on a world-wide empirical basis, the connection between economic prosperity and the share of manufacturing activity in the social dividend. The issue, as Dudley Seers<sup>2/</sup> had reminded us, is not whether but how to industrialize. For one reason or the other colonies and former colonies (the countries of the so-called Third World) have found it relatively difficult to embark on a sustained process of industrialization. Lewis<sup>3/</sup> has argued that this is due less to the popularly attributed political causes and rather more to the fundamentally economic cause of low factor productivity in their non-traded (wage) goods sector. It would seem however that, to the extent that old British colonial policy, based on mercantilist premises, either forbade or discouraged manufacturing pursuits in its colonies in competition with home production, the development of secondary industry in colonial territories must have been at a disadvantage.

## 1.3 The Official View

1.3.1 That official colonial policy was not favourably disposed towards industrial development in the British West Indies, and Trinidad and Tobago in particular, may be gleaned from official pronouncements on the subject. After noting the heavy dependence of West

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1/ Colin Clark: The Conditions of Human Progress, Macmillan

2/ Dudley Seers: "The Role of Industry in Development: Some Fallacies", Journal of Modern African Studies, I, 4 (1969), pp.461/5

3/ W. Arthur Lewis: The Evolution of the International Economic Order, Princeton U.P., 1977

Indian colonies on exports of cane sugar, that sugar prices had fallen by half between 1881 and 1896 while world sugar output had risen from 3.8m tons in 1882 to 7.3m tons in 1894, the Norman Commission nevertheless concluded that salvation lay in the restoration of the sugar industry to a profitable condition, agricultural diversification and land settlement, economy in public expenditure, emigration and welfare services.<sup>4/</sup> Earlier it was stated that "There is no prospect of manufacturing industries being established on any considerable scale"<sup>5/</sup> and that "... for manufactured goods ... West Indian possessions are dependent on being able to find a profitable foreign market for ... tropical products".<sup>6/</sup> The more celebrated Moyne Report had stated:

As regards non-agricultural industries, we do not recommend that West Indian Governments should conduct or finance speculative industrial enterprises. There are, however, certain possible projects which Governments might do well to foster: e.g. the establishment of a cement works in Jamaica, possibly in co-operation with British manufacturers and the development of the local manufacture of coconut products in Jamaica and elsewhere. <sup>7/</sup>

Mercantilist inspired ideas were clearly giving way to liberalism with its emphasis on free market forces in international trade and the limited interference of Government in economic affairs. If however industry should be fostered this was to be done in co-operation with British manufacturers.

1.3.2 The war years (1939-1945) were to change the reality of the industrial sector in Trinidad and Tobago and force ambivalence into the official position. Buoyant demand and disrupted supplies stimulated residentiary industrial development. The doubling of

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<sup>4/</sup> Report of the West India Royal Commission, C8655, 1897, p.8, Para.44.

<sup>5/</sup> Op.cit., p.2, Para.13

<sup>6/</sup> Op.cit., pp.2/3, Para. 14

<sup>7/</sup> West India Royal Commission Report, Cond.6607, 1945, p.443, Para. 46

oil output between 1934 and 1938, massive construction activities associated with U.S. military activities and the stimulation of food production more than compensated for the reduced activities in the sugar industry and resulted in a considerable increase in incomes. The increased demand could not be met from traditional imports since shipping had been disrupted, the allied economies were on war footing and at any rate were recovering from the low capacity levels of the depressed inter-war years. In the circumstances a large number of small and large manufacturing and repair establishments sprung up making a variety of foods, drinks, consumer items.<sup>8/</sup> After considering the experience of the war years and the prospects for the future, Gallotti in 1948 is aware that:

During the present economic crisis there is a tendency to restrict imports by direct prohibition .... If this tendency continues, local industries must continue to expand as they did during the war ... <sup>9/</sup>

but still concludes that when the world returns to a

healthy organization and trade ... the principle of comparative advantage should weigh more in determining long term policy than an assumption that industrial production ... or that one's own manufactures are preferable to other people's merely because they are one's own. <sup>10/</sup>

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<sup>8/</sup> For a full discussion of the evidence see L. Best: "International Co-operation in the Industrialization Process - The Case of Trinidad and Tobago" in UNIDO: Industry 2000 - New Perspectives: Collected Background Papers, Vol.6, Industrialization Strategies and Country Case Studies, ID/CONF.4/3. January 1980, pp.153/299.

<sup>9/</sup> Industrial Development in the British Territories of the Caribbean, Report prepared by the British Member of the Industrial Survey Panel appointed by the Caribbean Commission (R. Gallotti) 1948, 3 Volumes, p.14, Vol.I

<sup>10/</sup> Op.cit., pp.56/57



#### 1.4 The Challenge

1.4.1 The official policy, seeking to solve the depressed economic conditions in the West Indies by way of agricultural diversification, land settlement and social welfare, was challenged by Lewis who argued that

The policy which seems to offer most hope of permanent success is for the islands to follow in the footsteps of other agricultural countries in industrialization ... No other policy seems to offer such permanent prospects as the development of local industries. <sup>11/</sup>

Among the industries which Lewis named were refining sugar, making chocolate, utilising copra, making dairy products, i.e. resource based industries. There ensued between 1939 and 1950 a long debate<sup>12/</sup> with the spokesmen of official policy, culminating in Lewis' celebrated statement.<sup>13/</sup> Lewis concluded that there was no choice for the islands but to industrialize, whatever the obstacles, and proposed a strategy for a combination of regional import substitution and export promotion industrialization based on luring foreign industrialists by generous incentives and active promotion.

#### 1.5 The Response

1.5.1 In Trinidad and Tobago official response to the growing demand for an active policy to foster industrialization was the appointment in 1947 of a committee under the chairmanship of the governor, the Shaw Committee. This committee reported in 1949<sup>14/</sup> and in many respects its stance was not inconsistent with traditional

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<sup>11/</sup> W. Arthur Lewis, Labour in the West Indies: The Birth of a Workers' Movement, Fabian Society, 1939, republished by New Beacon 1977, p.44

<sup>12/</sup> For a discussion of this debate, see L. Best, op.cit., and T.W. Farrell: "Arthur Lewis and the case for Caribbean Industrialization", 1979 (mimeo) forthcoming, Social and Economic Studies

<sup>13/</sup> W.A. Lewis, Industrial Development in the Caribbean, Caribbean Commission. Reprinted from Caribbean Economic Review, 1951

<sup>14/</sup> Report of the Economics Committee

official policy. Thus it recognized "the important part which the expansion of existing industries and the addition of new ones (could) play in equating the Colony's import and export values"<sup>15/</sup> and was of the view that "secondary industries should be encouraged provided the quality (was) satisfactory, the price (did) not exceed that of previously imported goods, and their manufacture (did) not interfere with production of other goods for which there (was) an absolute or comparative advantage in the local or export markets"<sup>16/</sup> It concluded that "Government policy should, therefore, be to aid in the establishment and expansion of industries rather than to hinder their development by a fiscal policy which (aimed) mainly at customs and excise revenue"<sup>17/</sup>

1.5.2 The Committee recommended the establishment of the Economic Advisory Board to replace the less effective Local Industries Committee set up in 1941. It further proposed a number of incentives to industry, among them<sup>18/</sup>

- release of foreign exchange for purchase of plant and machinery,
- duty free import of plant and equipment,
- protective tariffs,
- removal of barriers to exports (e.g. Venezuela's 30% sur-tax) by the conclusion of agreements with foreign governments,
- exemption from income tax,
- assistance in obtaining raw materials for the manufacture of products for export.

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<sup>15/</sup> Op.cit., p.3.

<sup>16/</sup> Op.cit., p.4.

<sup>17/</sup> Op.cit., p.116

<sup>18/</sup> Op.cit., pp.117/118

The first and last proposals related to the post-war economic conditions in which there was a dollar shortage and in which British industry had not been fully reconverted from war time production. In addition, a number of industries were identified as deserving special assistance among them rubber, citrus, lumber, biscuits, industrial alcohol, liquers, cosmetics, pharmaceuticals, caustic soda, sugar bags, woven goods and bagasse based goods.<sup>19/</sup>

1.5.3 In order to implement these recommendations, legislative action was required. Thus the Aid to Pioneer Industries Ordinance (1950)<sup>20/</sup> gave to pioneer industries duty free concessions on imports of capital equipment, exemption from payment of income tax for five (5) years, unlimited carry over of losses, and tax free distribution of profits. The Income Tax (In Aid of Industry) Ordinance (1950)<sup>21/</sup> as amended in 1955 permitted the accelerated depreciation of capital in the post tax free period for pioneer manufacturers. In order to give special encouragement to cement production, the Cement Industry Development Ordinance of 1951 was also passed and was the first of a number of ordinances specially designed to encourage and protect large investments.

## 1.6 Criticism

1.6.1 The industrial promotion policies of the Colonial administration, with its fledgling ministerial system which came into being in 1950 was severely criticised by Williams.<sup>22/</sup> Following Lewis, Williams

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<sup>19/</sup> Op.cit., pp.119/122.

<sup>20/</sup> See Chapter 33, Ordinance No.3 of 1950. See also amendments of 1952/53, 1956 and 1961.

<sup>21/</sup> See Chapter 33, Nos.2 and 12 and Amendment No.48 of 1955.

<sup>22/</sup> Eric Williams, Economic Problems of Trinidad and Tobago, Teachers Economic and Cultural Association Ltd., People's Education Movement Public Affairs Pamphlet No.1, Woodford Square, July 5, 1955, repeated at Harris Promenade, San Fernando July 19, 1955.

contended that the only solution to the rapidly expanding labour force and the slow rate of growth of job opportunities in traditional activities was the creation of alternative jobs in tourism (short-run) and industry (long-run). He regarded the colonial administration as taking an "easy-going attitude to industrial development"<sup>23/</sup> of failing to afford protection to local industry, of not granting the incentives requested by the oil industry, and of relying on income tax exemption as its principal incentive. Williams proceeded to outline the Lewis strategy - a wide range of light industries as being the most favourable extension into the metal trades, importation of raw materials where necessary, accessing the requisite capital by appeals and incentives to foreign manufacturers, the involvement of government in industry where private investment might be unattracted, the establishment of industrial development corporations, protection where necessary. After noting that Trinidad had in its fuel supplies "one of the principal requirements for an enormous development programme designed to make (it) the industrial centre of the entire Caribbean area"<sup>24/</sup> he bemoaned the absence of appropriate government policies. Implicit in the analysis was the programme which ought to be implemented.

## 1.7 The Strategy

1.7.1 The details of the industrialization strategy outlined by Lewis and articulated by Williams are too well known to bear repetition. Suffice it to say that on the attainment of office in 1956, Williams set about to implement such a programme. Interestingly at the time of preparing the first five year plan Lewis spent "six weeks in Trinidad and Tobago in August and September" and "advised on the orders of priority to be allocated to the various Ministerial proposals and recommended a number of important modifications and departures from established ideas..... Government was also fortunate to obtain the advice and assistance of Mr. Teodoro Moscoso and Mr. Hubert Barton of the Puerto Rico Economic Development Administration who made a special

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<sup>23/</sup> Op.cit., p.11.

<sup>24/</sup> Op.cit., p.22.

study of Trinidad's possibilities for industrial development.<sup>25/</sup>

In Chapter 5 on Manufacturing Industries, the Plan remarks that the development programme would emphasize "the Public Utilities, Water, Transport and Road Facilities, and Land Sites, the utilization of which are important components of cost in manufacturing,"<sup>26/</sup> the training of the future members of the labour force in the new Technical School in Port of Spain, and that much of the assistance to industry could "only be granted through fiscal and financial measures."

Consistent with the strategy an Industrial Development Corporation was to be set up which "will be Government's agent in the execution of industrialization policy" charged with industrial promotion, creating the atmosphere where industrialists would feel welcome to enter and encouraged to expand, assisting industrialists in choosing sites and recruiting labour and with the preparation of factory sites for lease to industrialists. Finally special incentives were to be offered to "create parity with other countries where industries are already well established".<sup>27/</sup>

1.7.2 Some critical pieces of legislation followed in the next few years. Thus Act No. 11 of 1958 established the Industrial Development Corporation, and local industry was protected against unfair practices by the Trade Ordinance, 1958 and the Customs Duties (Dumping and Subsidies) Ordinance of the same year. The principle of 'no taxation of the means of production' was further advanced by Customs (Amendment) Ordinance, Act No. 2 of 1959 under which Section 49A granted exemptions of customs duty on raw materials for industry. There also followed, as was the case for the cement industry in 1951, a series of special ordinances designed to give protection to exceptionally large investment. Thus there were the Nitrogenous

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<sup>25/</sup> Foreword to Government of Trinidad and Tobago: Five Year Development Programme: 1958-1962, 1957

<sup>26/</sup> Op.cit., p.13

<sup>27/</sup> loc.cit.

Fertilizers Industry (Development) Ordinance (1958), the Lube Oil and Greases Development Ordinance (1961), the Petrochemicals Industry Development Act (1962) and the Tyre Manufacturing Industry Development Act (1967). Buttressing these arrangements have been a number of institutions which emerged later. The principal among these are the Management Development and Productivity Centre (1965), the Development Finance Corporation (1970), the Small Business Division of the IDC (1970), the Caribbean Industrial Research Institute (1971) and the Bureau of Standards (1972). Most recently the International Marketing Corporation (1978) has been established.

1.7.3 During the sixties it began to appear that the area for manoeuvre within the existing strategy had narrowed. The incentive programme had narrowed the tax base, petroleum output - and so revenues - had slowed down, recurrent expenditure implicit in the expanded social and economic infrastructure had reached a high level. Still expectations were rising and job opportunities growing far too slowly to cope with the population surge and the influx into the public sector of formerly self-employed persons. By the time the Third Five Year Plan was being drafted it was evident that the programme was not working, and blame was being placed on the non-viability of the small insular market. This led to modifications to the strategy, notably the emphasis on the regional market, and the formation of CARIFTA in 1968 represents a movement closer to the original Lewis recommendation. Thus attempts were made to harmonize fiscal incentives to industry throughout the CARICOM region and to increase the benefits to the region by relating the extent of fiscal incentives to the quantum of local value added. A category of 'enclave' industry was also created. This was given effect in the Fiscal Incentives Act of 1973 as amended by the Fiscal Incentives Act of 1979,<sup>28/</sup> which *inter alia* repealed the Aid to Pioneer Industries Ordinance and replaced 'pioneer' status by "approved industry" status.

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<sup>28/</sup> See Act No. 22 of 1979.

1.8 The Achievements of the Programme

1.8.1 In 1955 Williams had observed<sup>29/</sup> that since 1950, 101 manufacturers had been given pioneer status, i.e. at a rate of 25 a year. The first five-year plan had also remarked that the incentives programme had had relatively meagre results.<sup>30/</sup> In its ten year review<sup>31/</sup> the Industrial Development Corporation reported that "in all there was a total of 158 new factories, and an estimated investment of \$231m with a full-time employment of 8,377 people (plus the indirect employment created by these jobs). There were 80 new applications for the grant of Pioneer Status and 34 had been brought forward from 1967. The number of duty remission licences increased from 997 in 1959 to 5,020 in 1968, in respect of goods valued at \$18m and \$84m respectively in the two years and duty foregone of \$2,600 in 1959 and \$20m in 1968.

1.8.2 The optimism with which the programme was viewed is clearly reflected in the Second Development Plan where the period prior to the formation of the Industrial Development Corporation in February 1959 was contrasted with the post-I.D.C period and projections into the future made. The data are as follows:

The Pioneer Industries Programme

	<u>Number</u>	<u>Invest- ment</u>	<u>Direct Employment</u>
1. Pioneer Establishments in operation before February 1959	56	\$ 40.2m	2,713
2. Pioneer Establishments between February 1959 and June 1963	43	44.5m	1,963
3. Pioneer Establishments in operation in June 1963	99	84.7m	4,666
4. Factories under construction or planned at June 1963	40	173.2m	2,255
5. Present and prospective Pioneer Factories	139	257.8m	6,921

Source: Second Five Year Plan 1964-1968, p.220

<sup>29/</sup> Op.cit., p.10

<sup>30/</sup> Op.cit., p.13

<sup>31/</sup> The Trinidad and Tobago Industrial Development Corp. 1959-69

After noting that the manufacturing sector grew at an average annual rate of 9.7 per cent between 1951 and 1961, much of the growth coming after 1955, the conclusion is drawn that "the effect of the programme to encourage manufacturing industry, therefore, appears clearly in these data".<sup>32/</sup>

1.8.3 Optimism seems to have waned somewhat so that the Third Five Year Plan 1969-1973 could remark that "the manufacturing sector performed fairly well, increasing its output by about 7 per cent per annum between 1963 and 1968. Increases in production were dominated by petrochemicals, but there was also a good record of growth in garments and food processing."<sup>33/</sup> But the strategy clearly seems to have engendered considerable doubt as is evidenced by the projections of the plan and the discussions of solution to the worsening unemployment situation. The Plan remarks that "full employment will (not) be achieved until 1983-1985", but that "full employment will be brought nearer should large discoveries of crude oil or natural gas be made".<sup>34/</sup>

1.8.4 In the post 1970 period emphasis in the implementation of the strategy has been given an added dimension. The development of the small business sector is increasingly being stressed in the programmes of the Industrial Development Corporation while heavy industry is being emphasized through the National Energy Corporation which in 1978 replaced the Coordinating Task Force. Between 1970 and 1979, the Small Business Division of the IDC has granted loans of \$20.99 million to 1,171 small businesses, 483 of which were engaged in manufacturing activity.<sup>35/</sup>

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<sup>32/</sup> Second Five-Year Plan, 1964-1968, p.27.

<sup>33/</sup> Third Five-Year Plan, 1969-1973, p.15

<sup>34/</sup> Op.cit., pp.16/17

<sup>35/</sup> See I.D.C. Newsletter Vol. 1, January-March 1980, p.14



1.9 The Seventies

1.9.1 The industrialization strategy was being carried out against the background of the prosperous fifties and sixties. During these two decades, Lewis<sup>36/</sup> has told us that industrial output in the MDC's was growing at 5 per cent per year, world trade at 8 per cent and output in the LDC's at 6 per cent, and that increasingly the latter were exporting manufactures. This was a period of world economic expansion. However, since 1974 the world economy has been in depression following on the monetary and oil crises, and the ensuing dislocations, world inflation since 1972, and the slowing down of world trade to a 4 per cent rate of growth since 1974.

1.9.2 The major constraint on the success of the programme had been identified as the shortage of an investible surplus. The oil boom and the rapid inflow in petroleum revenues thus removed the constraint and the programme is being implemented.<sup>37/</sup> The experience to date is that the technology has been made available through various joint venture arrangements, markets have been found, and as before the export oriented sector promises fair. The critical question remains whether the strategy will work and the economy transformed. We return to this question in the Section III below where the strategic options and choices for the future are evaluated in the context of structural factors affecting the functioning of the economy.

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<sup>36/</sup> W. Arthur Lewis: "The Slowing Down of the Engine of Growth" American Economic Review, September 1980, pp.555/564

<sup>37/</sup> See Appendix III for a description of the Point Lisas programme

## II. The Manufacturing Sector in the Trinidad and Tobago Economy

### 2.1 Economic Structure

2.1.1 The key fact in the structure of the Trinidad and Tobago economy is the dominant position of the petroleum sector. Prior to 1973, oil traditionally provided about 25/30 per cent of the G.D.P. and Government revenues, and accounted for the bulk of the export trade. With the oil boom of 1973, when prices quadrupled, and with increased off-shore production, the share in G.D.P. reached 48 per cent in 1975. The statistical performance of the other sectors reflects the dominant position of oil. Other long term trends worthy of note are the declining absolute and relative importance of agriculture, particularly export agriculture, the rising importance of the services sector, particularly Government and Finance, and the stable share of the construction and the manufacturing sectors.

2.1.2 It is to be noted that the expansion of the construction sector is an essential feature of all booms both on account of capacity creation on the supply side and on account of the increased demand for residential housing as incomes rise. During the late seventies the construction sector has increased its share marginally from a low of 5 per cent in 1975, at the peak of the petroleum boom, to 8 per cent in 1980. However, while output has increased, this has been accompanied by massive inflation in building costs and land prices since the industry is operating beyond capacity.

2.1.3 The fledgling manufacturing sector hovered at 9 per cent to 10 per cent in the two decades 1950 to 1970. The petroleum boom resulted in its share falling to 6 per cent in 1975 but this has since risen to about 7 per cent in 1980. To the extent that manufacturing is to perform the role of the engine of growth in the long term its dynamism must be regarded as critical. Tables 2 and 9 illustrate the main structural features of the economy.

## 2.2 The Public Sector in the Economy

2.2.1 The emergence of active government has been an essential feature of the Caribbean attempt to ameliorate social and economic conditions in the post war period, more so since Independence. Because of its petroleum sector, public sector revenues in Trinidad and Tobago have always been sizeable and buoyant. Thus current revenues in 1951 amounted to \$62.6m or 20.3 per cent of G.D.P and the current surplus then was \$13m i.e. about 20 per cent of revenues. With the implementation of the First Five-Year Plan (1958-1962) and the Second Five-Year Plan (1964-1968), accumulated reserves were run down, and the improved social and economic infrastructure resulted in rising recurrent expenditure at the same time that fiscal incentives to industry were narrowing the tax base. The implied fiscal squeeze is illustrated by three years:

\$ Millions	1958	1962	1967
Recurrent Revenue	130.0	165.8	226.8
Recurrent Expenditure	97.4	155.8	213.3
Recurrent Balance	32.6	9.8	13.5
Development Expenditure	28.0	62.0	52.1

Source: Second and Third Five-Year Plans

2.2.2 This position changed dramatically from 1974. Firstly, between 1974 and 1980 Government's revenues increased substantially and ranged from 32 per cent of G.D.P in 1974 to 44 per cent in 1980. Current surplus was every year substantial and in 1980 exceeded \$3,000m. The impact of the public sector on the economy is however better measured by the share of Government expenditure in G.D.P. Current expenditure increased from \$476m in 1973 to \$2,818m in 1980, its share rising from 18.6 per cent to just over 20 per cent. However capital expenditure increased from \$130.5m in 1973 to \$3,155.9m in 1980 so that the total share of Government expenditure - current and capital - in the G.D.P was a staggering 42.4 per cent in 1980. Table 3A shows the increasing

importance of the public sector in capital formation since 1974 while Table 3B presents the data on central government financing.

2.2.3 During the seventies the Government has become increasingly involved in industrial and commercial activities.<sup>38/</sup> It has equity participation in 48 companies in agro-industry, petroleum, finance, communications and manufacturing. From 1973 to June 1980 its participation in these enterprises amounted to an investment of \$2,941m.<sup>39/</sup>

### 2.3 The Structure and Performance of the Manufacturing Sector<sup>40/</sup>

2.3.1 Exclusive of sugar manufacturing and oil refining, the manufacturing sector is relatively small and relatively new. The data on this sector are given in Tables 10, 11 and 12. As pointed out in a UNIDO Study<sup>41/</sup> there was already in 1940 a fledgling residentiary manufacturing sector in the country and this was further stimulated by the closure of the economy by World War II and the high incomes associated with the boom conditions of the U.S. military presence. Appendix IV gives a list of the industries in operation in 1942/43. More recent surveys indicate the importance of food processing industries, textile and clothing, furniture and building materials, principally clay block and cement. During the decade of the sixties there was considerable expansion in food processing and in the textile and clothing sector. But by far the biggest growth took place in the assembly-type industries producing consumer durables for the domestic and regional market. This trend has continued into the seventies as Table 10A indicates, though it would be important to point to the relative success of food processing and the relative decline in the textile/clothing trades. Increasingly the domestic market has dominated as foreign

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<sup>38/</sup> See White Paper on Public Sector Participation in Industry Nos. 1 and 2

<sup>39/</sup> Accounting for the Petro-Dollar 1980

<sup>40/</sup> For a recent exhaustive study see T.W Farrell, "The Structure, Organization and Performance of the Manufacturing Industry in Trinidad and Tobago", Ph.D. Thesis, University of Toronto 1979

<sup>41/</sup> L. Best, op.cit.

exchange problems put a brake on the CARICOM trade.

2.3.2 It would seem that in this phase import substitution industries dominated. True the fertilizer industries (industrial chemicals) are export oriented. But growth in export promotion industry has been relatively unimportant compared to import substitution industry. To the extent that the industries emphasized have been based on imported components and a demand determined strategy, to that extent it follows that the dynamism of the sector is determined by the extent to which other sectors of the economy (the staple export sectors) can earn the requisite foreign exchange.

2.3.3 Some indication of the number of establishments and the employment generated in the manufacturing sector is given in Table 11. Food processing, the textile and clothing trades and assembly type industry stand out both as regards size and growth. The detailed sector data in Table 12, indicate sluggish employment growth, poor productivity performance except in Metallic Products where there has recently been started the production of producer goods. There has been tremendous inflation of earnings, a trend consistent with the movement of costs and prices throughout the country.

## 2.4 Export Performance

2.4.1 Historically, Trinidad and Tobago has been an integral part of the western economic system, performing the role of staple producer for export and servicing its needs by imports. During the twentieth century it changed from being a producer of agricultural staples (tobacco, sugar, cocoa, coffee, copra, citrus, bananas) to being a mineral exporter (oil, asphalt). It remains today a trading nation. The perceived need to diversify the economy was two pronged, consisting in part of a shift of the production base from agriculture and mining to manufacturing, in part to a reduction of dependence on traditional exports and markets. Production and export dependence on a single dominant staple continues to be a structural feature of the economy.

2.4.2 The direction of trade clearly illustrates the predominance of petroleum. Imports from Venezuela and Saudi Arabia are simply crude oil for processing. Imports from the U.S.A., Canada, the United Kingdom and Japan are mainly of manufactured goods. The U.S.A. takes the vast bulk of exports, mainly petroleum products. Table 7 illustrates.

2.4.3 The importance of CARICOM in the trade of Trinidad and Tobago is illustrated by Table 7A. CARICOM accounts, in the seventies, for only a small share of total trade, and even in this petroleum products have dominated. While Trinidad and Tobago continues to enjoy a favourable balance of trade in CARICOM, as it has always done, the exclusion of petroleum products shows that a large favourable balance up to 1975 has been changed to a deficit of \$112m in 1979. The importance of the CARICOM market in the diversification strategy was recognized in the Third Five-Year Plan, and in 1970 out of a total export of manufacturers (ISIC groups 6, 7 and 8) of \$36.1m, the CARICOM market took \$34.1m, i.e. 94 per cent. The restrictions on exports to CARICOM which accompanied the balance of payments problems in 1977 and the ensuing 'tit for tat' policy of Trinidad and Tobago constituted a serious blow to this very sensitive sector.

2.4.4 Table 8 gives in detail the trade data in manufactures by SITC two-digit codes. It is to be noted that the data do not include trade in manufactured food products, beverages or tobacco. Indications are however that there is a sizeable and rapidly growing market for manufactures in Trinidad and Tobago amounting in 1978 to approximately \$2,282m i.e., imports of \$1,965m plus production of \$459m minus exports of \$142.6m. This is indeed a rough estimate, including as it does heavy equipment coming in/going out from use in the oil industry and showing up in the trade data, as well as substantial quantities of capital equipment which the sector cannot supply. Yet a market of \$2.2 billion for manufactures is sizeable indeed. Appendix IV lists the principal items of manufactures exported in 1978.

## 2.5 Inflationary Trends in the Economy

2.5.1 Traditionally, Trinidad and Tobago has been a price taker in international trade. Until 1971 price inflation has been moderate and wage increases have more or less reflected real gains in wage incomes. The long term trends are illustrated by the following data:

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Period	<u>Average Annual Percentage Increases</u>	
	Index of Retail Prices	Index of Minimum Wage Rates
1951-1956	2.2	7.1
1956-1960	2.8	5.3
1960-1965	2.1	10.7
1965-1969	4.3	4.0

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2.5.2 Since the seventies this has changed and there have developed external and internal inflationary pressures. Table 4 gives the trends in the main inflationary indicators at hand. Major increases in import prices since 1972, expansion in money supply, production bottle-necks at home and an active trade union movement, have contributed to high rates of price and wage inflation.<sup>42/</sup>

2.5.3 Price control of basic items, supported by Government subsidy, selective credit control by the monetary authorities, and wage guidelines administered by an Industrial Court (1965) have been the main weapons in anti-inflation policy. Because of the protection given to industry through negative listing, quality and price controls are deemed necessary to protect consumers, moreso in times of buoyant monetary demand. These are administered through a Prices Commission (1968), a Bureau of Standards (1972) and a Consumer Affairs Division of the Ministry of Industry and Commerce.

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<sup>42/</sup> See E.B.A. St. Cyr: "Rising Prices - An Exploratory Theoretical and Empirical Study of Trinidad and Tobago", C.S.O Research Papers, No.7, 1974 and "A Note on the Trinidad and Tobago Inflationary Experience, 1965-1976", Social and Economic Studies (forthcoming).

## 2.6 Oil Reserves and Projections<sup>43/</sup>

2.6.1 In 1977 oil reserves were estimated at 1,400 million barrels (one-half proven, one-half probable) and thought adequate for 10 years at current rates of production of approximately 80 million barrels per year. Reserves of natural gas were put at 17 trillion<sup>44/</sup> cubic feet (again one-half proven, one-half probable). At the then estimated projected use of 300 million cubic feet per year, the time horizon was infinite.

## 2.7 Rate of Exchange

2.7.1 All the data given are in Trinidad and Tobago dollars (TT\$). Up to May 1976 the rate of exchange was TT\$4.80 = £1 sterling (U.K) in fixed relationship. Since May 1976 a new fixed rate of exchange has been set at TT\$2.40 = U.S. \$1.

## III. Strategic Choices in Industrial Policy: Lessons of the Pre-1973 and Post-1973 periods

### 3.1 Situation

3.1.1 The industrialization strategy pursued has been fully articulated in the First, Second and Third Five-Year Plans which have detailed the institutional changes proposed, the policies to be followed, and given the supporting analyses. Our observations lead us to the view that the Plans have been faithfully followed, especially so far as the promotion of manufacturing industry is concerned. The evidence also suggests that the objectives of action have been achieved, if measured by the numbers of manufacturing establishments granted fiscal concessions, the quantum of investment attracted, the acreage of industrial estates developed and factory shells established, and most recently the number of small business establishments granted financial and other assistance. And

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<sup>43/</sup> See also the Ministry of Petroleum and Mines document; Best Use of our Petroleum Resources, January 1975

<sup>44/</sup> One trillion cubic feet =  $10^{12}$  cubic feet



yet it would be fair to say that the strategy has not worked as anticipated. Transformation of the economy from dependence on petroleum has not occurred neither has there emerged a dynamic industrial sector capable of clearing the labour market. In fact it would seem that the economy has become even more dependent on oil, that agriculture, especially export agriculture, has declined absolutely, that the unemployment problem remains as intractable as ever,<sup>45/</sup> and that rather the services sector, with Government in the lead, has expanded to take up the slack.<sup>46/</sup>

3.1.2 A careful reading of the Second and Third Five-Year Plans reveals that in addition to the problems of implementation identified the financing of the programme was thought to be critical. Thus the Second Plan (p.66) argues that:

... every step will have to be taken to ensure that adoption and implementation of an oil and natural gas conservation policy so as to bring about a rate of production that will, over the longest period possible, yield the optimum in revenue in the light of the country's need for time to make the required adjustments ...

In reviewing the Second Plan period 1964/1968, the Third Plan (p.44) noted that 60 per cent of the public sector's development programme was financed internally compared to the original Plan target of only 30 per cent. Still, in discussing the financing for the 1969/1973 period the Third Plan identified the need for about 40 per cent external financing, considers this to be a "somewhat tight financing situation" (p.145), and leaves a financing gap of \$19.5m.

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<sup>45/</sup> See T.M.A Farrell: "The Unemployment Crisis in Trinidad and Tobago: Its Current Dimensions and some Projections to 1985", Social and Economic Studies, 1978

<sup>46/</sup> See Eric St. Cyr: "The Services Sector and Full Employment" Trinidad and Tobago Review, Vol. 2., No.10, June 1978.

3.1.3 Nor have the massive inflows of funds in the post-1973 period altered this conception. Thus in December 1974, the Ministry of Petroleum and Mines document Best Use of Our Petroleum Resources (p.13) notes:

Financial Constraints

91. Government's majority participation in most of the projects under way and under consideration, coupled with the provision of infra-structural requirements for such projects would place a very heavy burden on it.

The whole tenor of the Bobb Report<sup>47/</sup> is of a massive financial squeeze, resulting from rapidly rising expenditure commitments and a slowing rate of growth of revenues. The changed financial position of the Government was however admitted by the Minister of Industry and Commerce in a speech to the Trinidad Manufacturers Association in March 1980. The Minister painted the picture as it was before 1973, prior to the so-called windfall of petro-dollars, and went on to outline the far brighter post-1973 situation, in particular noting that there was "a fundamental departure in the concept of industrialization possibilities in Trinidad and Tobago".<sup>48/</sup>

3.1.4 It is highly questionable however whether financial constraints could have been the major difficulty in industrialization. The data assembled by McIntyre and Watson<sup>49/</sup> show that for every year between 1956 and 1967 current outflows in respect of factor payments, management services and royalties exceeded by a substantial margin capital inflows for direct foreign investment. The corporate sector was clearly generating surpluses part of which was being reinvested.

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<sup>47/</sup> Report of the Committee to Review Government Expenditure, 18 October 1978, and Addendum to Report dated October 18, 1978, January 31, 1979.

<sup>48/</sup> See IDC Newsletter, Vol.I, January - March 1980, p.3

<sup>49/</sup> A. McIntyre and B Watson: Studies in Foreign Investment in the Commonwealth Caribbean, No.1., Trinidad and Tobago, I.S.E.R. 1970.

Even in the financially critical year 1973, when the public revenues were at rock bottom, net inflows for direct investment were \$128.4m, while there was a net outflow of investment income of \$170.6m.<sup>50/</sup> In the post-1973 surpluses continue to be generated and sizeable portions of this has accrued in the public sector. One of the conclusions of the UNIDO study<sup>51/</sup> is that, as a whole, the economy consistently generates large surpluses, but that these may accrue in specific sectors. It would seem therefore that the problem of financial constraint is a structural rather than global matter.

3.1.5 The current sustained windfall to national income, government revenues and foreign exchange holdings consequent on the new conditions of trade in the international petroleum industry has served once again to dramatise the choices to be made in industrial policy. By the second half of the sixties, some of these choices had already been coming to the fore as the Golden Age of the petroleum boom of the late fifties tailed off sharply. By the time the Third Five-Year Plan was being prepared in 1968 it was plain that the post-1950 strategy had not been diversifying the economy fast enough or far enough to solve the problem of unemployment and to localise economic control. Equally it was plain that the widening of markets through the pursuit of Caribbean economic integration would not by itself induce the desired changes. Then, as now, two basic questions remained. The first was how to generate enough structural interdependence between and within agriculture and manufacturing so as to eliminate the lop-sidedness of the petroleum economy. The second was how the dominant petroleum sector itself could be pressed into service to that end.

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50/ C.S.O. Balance of Payments of Trinidad and Tobago, 1975, p.2.

51/ L. Best, op.cit.

### 3.2. The Third Plan: The Solutions Proposed

3.2.1 The Third Five-Year Plan broached the answers to these critical questions (pp. 16/17). Diversification was to be achieved by a breakthrough in domestic agricultural, livestock and fishing production, while the yields per acre of traditional export crops such as sugar, cocoa, and citrus increased; through the development of exports of manufactures on a large scale to regional and world markets; and through a socially controlled expansion of the tourist industry. The strategy envisaged an increasing proportion of local ownership and participation with considerably more economic decision-making being made internally. While diversification proceeded as a long-term process, employment creation was to be tackled "by more immediate measures, principally a large Construction programme". Education and training were to assume "a critical significance".

3.2.2 Appropriate policy measures were to be instituted to give effect to these objectives. Thus fiscal, monetary and financial policies were to "create the framework for greater mobilization of local financial resources" by establishing more local ownership of financial institutions, encouraging investment and penalising consumption. Commercial policy would protect potentially viable local industries, encourage the export of manufactures, strengthen the regional integration movement and develop wider relations with Latin America. An incomes policy would provide guide posts for wage and salary increases, encourage the reinvestment of profits and supervise price movements. In the productive sectors, national participation would be deepened; inter-industrial relations would be developed in agriculture and industry, and inter-related complexes would be emphasized in manufacturing, particularly in the promising new field of petro-chemicals.

3.2.3 The assumption was that diversification through these approaches would be brought nearer should large discoveries of crude oil or natural gas be discovered in the East and North Coast marine fields which were

being explored at the time. Thus the Plan argued (p.17):

If crude oil is discovered, the revenues and foreign exchange will indirectly provide the necessary resources. If, on the other hand, natural gas is discovered, while the foreign exchange and revenue accretions may not be as great as in the case of oil, the natural gas could be directly used to build up a large integrated petro-chemical complex, producing both intermediate and final products.

In other words the Third Five-Year Plan visualized a programme of diversification to which the energy sector would provide a stimulus through:

- (a) higher incomes, and so demand/expenditure on agro-industrial outputs - the demand effect;
- (b) higher levels public revenues, public and private savings and therefore of funds for investment in agriculture and industry - the capital formation effect; and
- (c) new sources of raw materials which would serve as inputs (feedstock) to productive activities - the supply effect.

3.2.4 It follows that the central issue therefore became the growth path of the dominant petroleum sector. Was there sufficient reserve of oil and natural gas? Unfortunately it was still not possible to say with certainty what the marine areas were likely to yield. It was therefore argued that long-term economic projections could not be made with any firmness and the discussions of strategy was thereafter conducted "only in qualitative terms" with the aid of some hypothetical numbers to indicate the possibilities (pp. 110-112). It was estimated that 200,000 new jobs were to be created so as to achieve full employment in 1983 and that the manufacturing sector would generate 25 per cent of this. The average capital cost of one job was assumed to be \$23,000 at 1968 prices, so that the total net investment required to attain full employment by 1983 amounted to \$4,600m. The exercise went on to show that this could be financed if the national savings rate went up from 7.5 per cent of Net National Income in 1968 to 14 per cent by 1983, if G.D.P and National Income both rose at 5 per cent per annum over the period, and further if Net External Borrowing by the Public

Sector, reinvested profits of foreign enterprises and New Capital Inflows all increased at the same rate as National income.

3.2.5 The central question which this exercise was intended to answer was "how much of this needed sum are we in a position to provide for ourselves?" (p.111). On the assumption of a change of savings habits, the answer was a very large part. It was in this perspective that the petro-dollar windfall arrived in late 1973 almost at the same time as new finds of oil and gas, and just before the introduction of the new petroleum legislation in 1975. Henceforth the petroleum sector would deliver both a huge financial surplus much of it to the public coffers, from sales of oil at dramatically elevated prices, and large quantities of potential feedstock in the form of natural gas. But the strategic choices, it seems remained to be articulated. The period since 1974 has therefore witnessed:

- (a) huge investments in infrastructure development (roads, water, gas, electricity, port) and downstream activities (iron and steel, fertilizers) most associated with the Point Lisas estate (See Appendix III);
- (b) a recurrence of the problem of financing in spite of hugely increased incomes and revenues and a much greater level of all-round liquidity including foreign exchange;<sup>52/</sup>
- (c) a manifest difficulty in activating investment and output in the productive sectors of agriculture and manufacturing: the absolute level of real output in agriculture has actually fallen, while manufacturing output has fluctuated about a constant level even though it has been concentrated in demand-led assembly activity and demand has been buoyant.<sup>53/</sup>

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<sup>52/</sup> See Bobb Report, op.cit. The Central Bank in 1980 required commercial banks to hold 15 per cent of incremental deposits in statutory reserves with it in a desperate attempt to curb excess liquidity in the system.

<sup>53/</sup> See Review of the Economy, 1980

### 3.3. The Questions Today

3.3.1 The following questions, together constituting the critical choices regarding industrial policy, suggest themselves, and there is dire need for a framework capable of integrating them in a coherent whole.

3.3.2 The first and most important question is: how much surplus can be generated by the staple sector? This question is fundamental since the staple (sugar, minerals, bananas or tourism) has been the avenue by which the Caribbean-type economy has accessed the international market with those things in which it has a world advantage and from which therefore it has been capable of earning quasi-rents at the critical phase of the product cycle: the so-called Golden Age. In addition surplus from the staple accrues in foreign exchange, often a necessary (if not sufficient) resource for transformation. Where the staple is a wasting asset such as oil or natural gas, as is the case at hand, the finite time horizon further complicates matters and raises such considerations as reserves and how they relate to present and future consumption technologies, rates of output/depletion<sup>54/</sup> for optimal benefits to the society, pricing and taxation policies. This question was posed as early as the Second Plan (p.66) but is the point at which the conventional analysis often stops.

3.3.3 Secondly there is the question: where will the surplus accrue? Will it accrue in the corporate, the public, or the private domestic sector? This question relates critically to the structural/institutional characteristics of Caribbean-type economy, and depending on how it is answered there arises quite different options. McIntyre and Watson<sup>55/</sup> have shown that while the Trinidad and Tobago public and private domestic sectors were short of investment funds in the critical sixties, the corporate sector consistently generated surpluses which it repatriated.

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<sup>54/</sup> For a recent discussion of the problem see D. Pantin: "Depletion Theory and Petroleum Planning: the Case of Trinidad and Tobago", Trinidad and Tobago Institute of the West Indies, (mimeo) December, 1979.

<sup>55/</sup> Op.cit.

Other writers in the field have not been unaware of this problem. Thus Eric Williams concludes the section on "An Incomes Policy - Wages and Prices" of his Reflections on the Industrial Stabilization Act, 1965 as follows:

If we could get the oil and sugar companies and other expatriate Companies to ... channel funds into agricultural and industrial development, then this will go a long way towards utilizing profits in the interest of the development of the country.

In the present era the public sector is in financial surplus and has embarked on a number of sizeable investment projects. At the same time however, the private domestic sector, and in particular small, unincorporated businesses, are short of funds. To the extent that the corporate sector is integrated internationally within transnational corporations whose global objectives determine the investment activities of their branches, and to the extent that entrepreneurial activity might not be the forte of the public sector, to that extent is the sector in which the surplus accrues crucial to its utilization.

3.3.4 Thirdly, in what form does the surplus accrue? Does it accrue as tax revenue or as the profits of enterprises? In general in countries like Trinidad and Tobago with a tradition of private entrepreneurial activity, private enterprises are more likely to use surpluses for reinvestment in productive activity since the profit urge may be more imminent. While it is true that the public sector has a substantial stake in commercial and industrial activity, this is relatively recent and often it has been designed to keep an enterprise from closing down and destroying jobs. An assessment of the past performance of the public sector as an entrepreneur is still to be made, but the presumption of its ineffectiveness to date is strong.

3.3.5 Fourthly, does the surplus accrue in locations where it is associated with the collaborant resources viz. entrepreneurship, management and technology? It may be tempting to argue that these resources can be brought together; however by itself this very act would be entrepreneurship. In the capitalist system the firm (Ricardian, Marshallian, or TNC) contains within itself the combination



of resources to make good use of the surplus it generates, ploughing it back in the natural process of growth/accumulation. Where the surplus accrues in the public sector the question would be that of creating appropriate locations where critical resources occur together. Within the Trinidad and Tobago public sector attempts to create these locations include the Co-ordinating Task Force and its successor the National Energy Corporation, the National Agricultural Corporation, and the Office of the Corporation Sole. The idea is to group state enterprises under holding companies the more effectively to manage their reporting to the Corporation Sole and also to reduce the extent of civil service bureaucracy.

3.3.6 Fifthly, are there transfer mechanisms which shunt funds from areas of surplus to areas of deficit, both measured in relation to the collaborant productive factors discussed? This is clearly a question of the efficiency of the financial system, assuming as is not unreasonable that entrepreneurship, management and technology are less mobile than finance. The financial system of Trinidad and Tobago is far from developed and exhibits peculiarities derived from its origins for serving the export-import trade. In the past fifteen years there has been a number of institutional changes in the financial system and others are planned. It does seem however that while there continues to be funds for such purposes as commerce, real estate and personal consumption (consumer durables, travel, etc.) risk capital, in particular for industry and agriculture, is short. An area of industrial banking remains underdeveloped despite the efforts of the Agricultural Development Bank (1968), the Development Finance Corporation (1970), and the Industrial Development Corporation. It is in this context that the issue of the establishment of a stock exchange and the divestment of the Government's equity holdings are currently discussed.

3.3.7 Sixthly, for any given surplus, what are the expenditure options? In light of stated objectives what is the most effective balance between (a) Welfare Expenditure; (b) Staple Expansion by (i) exploration to secure the staple; and (ii) downstream activity to increase the returned value per unit of output produced;

(c) directly productive activities in manufacturing and agriculture for diversification; and (d) investment in infrastructure to complement all these? It is evident that these expenditure options are not separate and distinct from each other. Obviously infrastructure is needed for productive and consumptive activity, and this was emphasized especially in the First Development Plan. Staple expansion and output diversification are also easily conceded as making for increased economic betterment. Often however welfare expenditure is regarded as a derivative, grudgingly conceded, and summarily removed at the first sign of financial stringency. It might well be however that welfare expenditure is as integral a part as any other in the expenditure options since it enhances the quality of life of the citizenry thereby giving a stake in the fruits of the economic system.

3.3.8 Finally we pose what might be the most difficult question of all, namely, is there some critical minimum of supply-led productive activity in the economic system which inter alia makes for a viable size of market on the one hand, and on the other generates essential scale elements in such areas as the supply of productive and managerial skills, technological know-how, and intermediate inputs? The question derives from one of the oldest propositions viz. Say's Law of Markets. If there is a positive inclination in the answer, this question may prove to be the most fundamental of all, since for the size of Trinidad and Tobago (area, population, income, resources), it might determine the level at which the system is viable.

3.3.9 The Third Five-Year Plan, and subsequent action, might not have given sufficient attention to the subsidiary questions which lay behind the issue of where the national surplus accrued. For this reason too much emphasis might have been placed, in the choice of an industrialization strategy, on winning more surplus, i.e. an oil bonanza, on transferring it to national control (through policies of localization) and particularly to public sector control (nationalization). Wider and more complex subsidiary questions have been posed above. These do not seem to have been perceived sufficiently sharply in the strategies for industrial

development. Hence when the oil bonanza arrived and the huge surplus was actually achieved, manifest difficulty has been experienced in translating them into an effective programme of diversification. Agriculture has suffered, wage and welfare policies in general have left widespread dissatisfaction, and manufacturing has either drifted along the path of demand-led expansion or seems tied to limited processing for precarious export markets. Small business development has remained a separate and knotty issue, and the use of housing construction as a short term measure has not been feasible.

List of Tables and Appendices

Appendix I	Industrial and Trade Classifications
Appendix II	Summary list of Legislation and Institutions for Industrial Promotion
Appendix III	A note on Point Lisas
Appendix IV	List of industries in operation in Trinidad in 1942/43
Appendix V	Principal items in export of manufactures

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Table 1	Population Trends: Trinidad and Tobago
Table 2	Gross Domestic Product: TT\$million
Table 3	The Public Sector in the Trinidad and Tobago Economy
Table 3A	The Public Sector in Investment Expenditure
Table 3B	Central Government Financing
Table 4	Indicators of Inflationary Trends
Table 5	Energy Sources
Table 6	Visible Trade showing importance of manufactures (SITC Groups 6, 7, 8).
Table 7	Direction of Trade
Table 7A	Importance of CARICOM Trade
Table 8	External Trade in Manufacturing: 1970-78
Table 9	GDP at Factor Cost (Current Prices) by Sector
Table 9A	Shares in the GDP
Table 10	Trends in Manufacturing Output
Table 10A	Gross Domestic Product at Factor Cost in Manufacturing Industry (Current Prices) by Industry Group
Table 11	Employment in Large Establishments by Industry
Table 12	Index Numbers of Employment, Productivity and Earnings in the Manufacturing Industry.





APPENDIX II

Summary List of Legislation and Institutions  
for Industrial Promotion

A. Incentive Legislation

1. Aid to Pioneer Industries Ordinance, 1950 as amended by
  - Aid to Pioneer Industries (Amendment) Ordinance, 1952/53
  - Aid to Pioneer Industries (Amendment) Ordinance, 1956
  - Aid to Pioneer Industries (Amendment) Ordinance, 1961
  - Provided for :
    - a) Duty free importation of capital equipment for firms granted pioneer status
    - b) Exemption from payment of income tax for 5 years (could be extended to 10 years)
    - c) Unlimited carry over of losses incurred
    - d) Tax free distribution of profits in tax holiday period or two years thereafter.
2. Customs (Amendment) Ordinance, 1959, Section 49A  
Raw materials and supplies exempt from customs duties for pioneer and other approved industries.
3. Customs Duties (Dumping and Subsidies) Ordinance, 1958  
Compensatory duty may be imposed on dumped goods to protect local industry.
4. Trade Ordinance, 1958  
Permits the prohibition of imports to protect local industry.
5. Income Tax (In Aid of Industry) Ordinance, 1950 as amended by
  - Income Tax (In Aid of Industry) (Amendment) Ordinance, 1955Permits accelerated depreciation in post tax free period for pioneer industries.
6. Fiscal Incentives Act, 1973 as amended by
  - Fiscal Incentives Act, 1979Provides for the harmonization of incentives in CARICOM.  
Relates the quantum of fiscal incentives to local value added.

7. Special Ordinance for very large investments
  - a) Cement Industry (Development) Ordinance, 1951
  - b) Nitrogenous Fertilizer Industry (Development) Ordinance, 1958
  - c) Lubricating Oils and Greases Industry (Development) Ordinance, 1961
  - d) Petrochemicals Industry Development Act, 1962
  - e) Tyre Manufacturing Industry Development Act, 1967

B. Institutions

1. The Industrial Development Corporation established February 1959 by Act of Parliament, 1958  
  
Small Business Division of the IDC established 1970 (grants loans up to \$200,000).
2. The Management Development Centre established 1973 but functioned as arm of IDC since 1965.
3. The Development Finance Corporation, 1970, established under Companies Ordinance.
4. Caribbean Industrial Research Institute, 1971.
5. Bureau of Standards, 1972.
6. Export Promotions Division of the Ministry of Industry and Commerce established 1968 to stimulate non-traditional exports.
7. International Marketing Corporation, 1978.



APPENDIX III

A Note on Point Lisas <sup>1/</sup>

Point Lisas is a large industrial estate situated on the western side of Trinidad and located mid-way between Port of Spain and San Fernando. It abuts the sugar and oil industries. The estate is owned by a private limited liability company, the Point Lisas Industrial and Port Development Company (PLIPDECO) and was incorporated in 1966. Originally conceived in 1956 by businessmen active in the South Trinidad Chamber of Commerce to stimulate port development and heavy industry in the south, the company is now almost wholly owned by the Government of Trinidad and Tobago. In its many years of active promotion of its estate as an industrial site for large international industry, the company succeeded in attracting only one large client viz. Federation Chemicals Limited in 1958, a wholly owned subsidiary of Grace, the international giant. The Government had however all along been sympathetic to its endeavours as indicated by its payment for a feasibility study undertaken by Arthur D. Little in 1965. <sup>2/</sup>

The Government became a large share holder of the company, somewhat accidentally, when in 1970 it purchased majority holding in Caroni Ltd. a subsidiary of Tate and Lyle, and subsequently acquired the remaining shares to establish Caroni (1975) Ltd. From the inception of PLIPDECO, Caroni Ltd. had taken equity participation in exchange for land. With the onset of the petroleum revenues in 1973, the Board of PLIPDECO negotiated the formal taking by Government of the reins of the company, a move which brought together the growing surpluses of the country and the industrial plans of the country.

The estate comprises 1,500 acres of fully developed industrial land reclaimed from the marshes by 6 feet of fill, adequately drained, and now served by connecting roads and internal roadways, and the other critical infrastructure of water, piped natural gas, and a modern deep water port

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<sup>1/</sup> See Articles of Association, Progress Report on the Development of Point Lisas - Report No. 1, July 1978 and Reports of the Co-ordinating Task Force.

<sup>2/</sup> See Third Five-Year Plan 1969-1973, pp 306/7

with heavy gantry cranes. In addition, the Electricity Commission has invested heavily in the provision of substantial quantities of electricity on site, through the installation of a complex of gas turbine units. In addition to Federation Chemicals and the joint venture Tringen Fertilizer Company between the Government and Grace, which came into production in 1978, the two large industries which are well advanced are the iron and steel complex (ISCOTT) and Fertrin, a joint venture fertilizer company between the Government and AMOCO, the international oil major. From the former will be produced sponge iron, steel billets and wire rods produced from imported lump ores and pellets aimed at the export market in part, while the latter will produce fertilizers for export from natural gas feedstock.

A number of other heavy industries are at a planning stage, viz. an aluminium smelter possibly a joint venture CARICOM project based on Jamaican/Guyanese ores, a methanol plant, and an LNG plant. There are also provisions on the estate for so called "downstream" industries based on iron and steel, petrochemicals and aluminium, and various service industries such as engineering. In addition, PLIPDECO envisages the development of housing complexes and the ancillary community and commercial services associated with a large industrial and residential area.

It has been suggested that we are witnessing at Point Lisas, inter alia, the change in the Trinidad and Tobago staple export from oil to natural gas, which latter, because of its inherent nature, is being embodied in iron and steel and fertilizers prior to export. To the extent that some down-stream processing is taking place, this must add to local income from the staple. The corporate form is also in process of transition from a wholly owned subsidiary of a transnational giant to a joint venture company between government and foreign enterprise.

APPENDIX IV

List of Industries in Operation in Trinidad in 1942/43

Part I Large Scale Secondary Industries Manufacturing Goods  
Both for the Domestic Market and for Export

Angostura Bitters  
Carbon Dioxide Manufacture  
Industrial Gases  
Matches  
Lime and Limestone

Part II Secondary Industries of an Advanced kind Producing  
Goods for Local Consumption but not to any Substantial  
Extent for Export

1. Food, Drink and Tobacco

Aerated Waters	Confectionery (Sweets)
Beer	Grape Fruit (Canning)
Biscuits	Ice
Bread	Ice Cream
Chocolate and Cocoa Powder	Jams and Jellies
Cigars	Lard and Lard Substitute
Cigarettes	Liqueurs
Coffee	Margarine
Coconut Oil (edible)	Pipe Mixtures
Coconut Meal	Stout
(Animal Food)	Wines

2. Clothing and Footwear

Alpargatas (Sandals)	Pyjamas
Dresses	Shirts
Hats	Suits
	Underclothing

3. Household Equipment

Candles	Soap
Furniture	Washing Soda
Mattresses	

4. Medicines, Toilet Preparations, etc.

Alcohol	Methylated Spirits
Bay rum	Perfumed Spirits
Herbal Extracts	Toilet Preparations
Medicinal Preparations	

5. General Industries

Acetylene	Bricks
Boats and Launches	Building
Book-binding	Clay Products
Concrete Products	Steel Barges
General Engineering	Steel Drums
Laundries	Storage Tanks
Motor Car Repairing	Tanneries
Oxygen	Tombstones
Packages	Tyre-repairing
Printing	(re-threading
Saw-milling	and vulcanizing)

Part III Minor Industries and Crafts conducted Principally  
in the Homes of the Workers

Basketry	Jewellery
Boots and Shoes	Barrels
Brooms and	Novelties (including
Brush-making	wooden toys)
Charcoal Burning	Pottery
Coconut Fibre	Preserves (fruits,
Mats	chutneys, sauces)
Dress-making	Tinware
Engraving Gold	
and Silver Work	

Source: Industrial Development in the British Territories  
of the Caribbean, Vol. II, pp 10/11.

APPENDIX V

Principal Items in Export of Manufactures in 1978

<u>SITC Code</u>		<u>Item of Value \$1 million or more</u>
64: Paper	642-11.120	Paper Bags without handles
	642-11.200	Cardboard boxes
	642-22.000	Envelopes
	642-93.200	Toilet paper
65: Textiles	653-70.000	Knitted or crocheted fabrics - (not elastic)
	653-81.100	Sanitary napkins - Pads
66: Non-metal Minerals	665-11.100	Beer, wine and similar bottles of glass
	665-11.910	Other bottles of glass
69: Manufacture of Metals N.E.S.	692-31.000	Gas containers of iron or steel
	697-11.110	Gas stoves, ranges, etc.
	698-85.100	Crown corks
71: Non- electrical Machinery	718-42.100	Oil mining machinery (re-exports)
	719-22.900	Other air and vacuum pumps, fans, blowers, etc.
72: Electrical Machinery	725-01.100	Domestic refrigerators electrical
	725-03.000	Electro-mechanical domestic appliances
73: Transport Equipment	731-63.000	Containers equipped for carriage
	734.10.000	Flying machines (re-exports)
	735-91.100	Tugs over 250 tons (re-exports)
	735-92.900	Other dredgers, fire floats, cranes, etc.
84: Clothing	841-11.300	Trousers and shorts, men and boys, non-knitted.
	841-25.100	Brassieres
	841-43.420	Knitted panties for women and girls (Also dresses, shirts, stockings, pull- overs and hats)
85: Footwear	(Slippers, footwear of rubber, plastic and leather).	

89: Miscellaneous Manufactures	893-09.900	Plastic articles not elsewhere specified
	897-11.100	Articles of jewellery - gold
	897-11.200	Articles of jewellery - silver
	899-62.900	Other orthopaedic appliances etc, (Side fasteners, tooth brushes).

TABLE 1

POPULATION TRENDS: TRINIDAD AND TOBAGO

<u>Census Years</u>			<u>Mid-Year Estimates</u>			<u>Projections</u>	
Year	'000	Average Annual Rate	Year	'000	% Increase	Year	'000
1844	73.0	-	1971	1030.0	-		
1901	273.9	2.1	1972	1043.0	1.3	1985	1385.8
1911	333.6	1.0	1973	1067.8	2.3	1990	1502.6
1921	365.9	1.3	1974	1067.0	1.4	1995	1625.8
1931	412.8	2.4	1975	1081.6	1.4	2000	1753.5
1946	563.2	3.3	1976	1098.2	1.5		
1960	828.0	1.2	1977	1118.5	1.6		
1970	931.1		1978	1137.5	1.7		
1980	-		1979	1156.1	1.9		

Source: Central Statistical Office (CSO).

TABLE 2  
GROSS DOMESTIC PRODUCT  
(TT\$million)

Year	Factor Cost Current Prices	Factor Cost 1970 Prices	GDP Manufacturing	Manufacturing Percentage
1951	308.3	-	29.1	9.4
1960	865.9	-	91.4	10.6
1970	1,630.9	1,630.9	150.7	9.2
1971	1,796.3	1,658.9	163.0	9.1
1972	2,039.4	1,746.6	193.1	9.5
1973	2,554.7	1,784.9	220.2	8.6
1974	4,101.5	1,798.6	275.7	6.7
1975	5,496.7	1,923.6	342.5	6.2
1976	6,502.3	2,126.5	429.2	6.6
1977	8,552.2	-	523.1	6.1
1978	9,501.6	-	631.1	6.6
1979	11,499.7	-	773.2	6.7
1980	14,081.9	-	967.5	6.9

Source: Central Statistical Office (CSO), The Gross Domestic Product of the Republic of Trinidad and Tobago, and Annual Statistical Digest. Review of the Economy, 1980.



TABLE 3

THE PUBLIC SECTOR IN THE TRINIDAD AND TOBAGO ECONOMY

(TT\$million)

Year	GDP	Current Revenue	Capital Receipts	Current Expenditure	Current Surplus	Capital Expenditure	Total Expenditure	Total Exp. GDP	Current Revenue GDP
1951	308.3	62.6	-	49.6	13.0	-	-	-	20.3
1960	865.9	138.2	-	100.9	37.3	-	-	-	16.0
1970	1,630.9	324.2	3.3	273.2	51.0	111.2	383.5	23.5	19.9
1971	1,796.3	355.9	7.9	340.6	15.3	118.9	459.5	25.6	19.8
1972	2,039.4	413.8	1.5	408.7	5.1	140.9	549.6	26.9	20.3
1973	2,554.7	493.9	0.9	476.3	17.6	130.5	606.8	23.8	19.3
1974	4,101.5	1,306.9	80.8	637.6	669.3	341.8	979.4	23.9	31.9
1975	5,496.7	1,816.0	31.2	773.3	1,042.7	428.9	1,202.2	21.9	33.0
1976	6,502.3	2,302.6	0.3	979.1	1,323.5	891.8	1,870.9	28.8	35.4
1977	8,552.2	2,981.0	6.0	1,162.9	1,818.1	1,094.0	2,256.9	26.4	34.9
1978	9,501.6	3,083.2	2.5	1,483.0	1,600.2	1,409.6	2,892.6	30.4	32.4
1979	11,499.7	4,037.0	0.1	2,247.5	1,789.5	1,943.6	4,191.1	36.4	35.1
1980	14,081.9	6,179.4	48.2	2,818.9	3,360.5	3,155.9	5,974.8	42.4	43.9

Source: Review of the Economy 1980

TABLE 3A

THE PUBLIC SECTOR IN INVESTMENT EXPENDITURE

(\$million - Current Prices)

Year	GDP	GDP <sup>1/</sup> Government	Gross Domestic Consumption Expenditure	Gross <sup>2/</sup> Domestic Investment Expenditure	Government Domestic Consumption Expenditure	Government Direct Investment Expenditure	Gross Domestic Investment as % of GDP	Government Investment as % of Total Domestic Investment
1970	1623.5	136.6	1383.3	377.4	201.2	81.1	23.2	21.5
1971	1799.1	179.6	1506.5	561.0	260.9	103.6	31.2	18.5
1972	2033.4	209.9	1770.3	563.1	331.2	138.1	27.7	24.5
1973	2472.7	233.0	1950.1	540.8	341.3	146.5	21.9	27.1
1974	4003.0	290.9	2223.9	766.9	488.9	220.5	19.2	28.8
1975	5382.2	424.2	3535.3	1074.7	649.4	379.5	20.0	35.3
1976	6220.8	467.8	4093.3	1362.2	833.6	597.8	21.9	43.9
1977	7198.8	500.9	4768.8	1790.7	1024.5	806.5	24.9	45.1

<sup>1/</sup> Excludes public enterprises<sup>2/</sup> Excludes public enterprises.Source: International Sources (IBRD).

TABLE 3B

## CENTRAL GOVERNMENT FINANCING

(TT\$million)

	1972	1973	1974	1975	1976	1977	1978
Current Revenues	380.4	439.1	1180.0	1668.1	2126.7	2685.4	2706.8
Current Expenditure	421.5	456.0	708.7	904.4	1232.6	1531.4	2164.0
Current Surplus/Deficit	<u>-41.1</u>	<u>-16.9</u>	<u>471.3</u>	<u>763.7</u>	<u>894.1</u>	<u>1154.0</u>	<u>542.8</u>
Capital Revenues	32.1	51.8	240.3	217.4	237.1	266.4	262.7
Capital Expenditure	124.1	107.7	278.7	353.2	729.9	975.2	1584.4
Overall Surplus/Deficit	<u>-133.1</u>	<u>-72.8</u>	<u>432.9</u>	<u>627.9</u>	<u>401.3</u>	<u>445.2</u>	<u>-778.9</u>
<u>FINANCING</u>							
<u>Net External Borrowing</u>	<u>36.4</u>	<u>55.5</u>	<u>-15.8</u>	<u>-20.4</u>	<u>-79.7</u>	<u>366.7</u>	<u>385.5</u>
Disbursements	44.5	65.9	47.3	10.9	9.5	382.0	394.8
Amortization	8.1	10.4	63.1	31.3	89.2	15.3	14.3
<u>Net Domestic Financing</u>	<u>96.7</u>	<u>17.3</u>	<u>-417.1</u>	<u>-607.5</u>	<u>-321.6</u>	<u>-811.9</u>	<u>393.4</u>
Banking System	35.8	6.2	-488.3	-757.3	-464.8	-1160.4	-
(Treasury Bills)	(21.6)	(1.1)	(-4.4)	(-13.6)	(-11.3)	(13.5)	-
(Securities)	(8.3)	(-4.1)	(-6.2)	(-4.7)	(27.8)	(23.4)	-
(Other Credit)	(1.3)	(6.5)	(-4.8)	(-13.0)	(-25.2)	(-13.9)	-
(Change in Cash Balances)	<u>(4.6)</u>	<u>(2.7)</u>	<u>(-472.9)</u>	<u>(-726.0)</u>	<u>(-456.1)</u>	<u>(-1183.4)</u>	-
OTHER DOMESTIC FINANCING	60.9	11.1	71.2	149.8	143.2	348.5	-

Source: International Sources (IBRD)

TABLE 4  
INDICATORS OF INFLATIONARY TRENDS

(Percentage change)

Year	Index of Retail Prices	Index of <sup>2/</sup> Minimum Wage Rates	Index of Import Prices <sup>3/</sup>	Money <sup>4/</sup> Supply	Implicit GDP Deflator
1970	2.5	3.8	2.1	20.3	-
1971	3.5	6.6	4.5	27.6	8.3
1972	9.3	10.7	9.2	22.3	7.8
1973	14.8	12.1	22.4	0.9	22.5
1974	22.0	11.9	32.0	32.8	59.3
1975	17.0	28.5	10.0	50.7	25.4
1976	11.7	21.7	3.5	38.1	7.0
1977	11.8	11.7	14.2	31.7	9.8
1978	10.2	24.7	7.3	43.2	
1979	14.7	19.6		17.2	
1980	18.7 <sup>1/</sup>	23.5		40.7 <sup>5/</sup>	

1/ January/June 1980 compared to January/June 1979

2/ May to May

3/ Excluding mineral fuels

4/ Narrow money

5/ January to August.

Source: Central Statistical Office (CSO).

TABLE 5

ENERGY, FERTILIZER AND SUGAR PRODUCTION

Year	Crude Petroleum mill bbls	Refinery Throughput mill bbls	Natural Gas '000 mill cu ft	Fertilizer '000 Short tons	Sugar '000 tons
1951	20.8	35.0	-	-	141
1960	42.4	77.5	-	-	218 (1967:250)
1968	66.9	150.7	-	642.6	240
1969	57.4	154.1	-	648.8	237
1970	51.0	154.8	-	611.4	216
1971	47.1	145.5	109.8	568.6	213
1972	51.2	144.4	104.3	629.5	231
1973	60.6	141.4	120.0	459.0	181
1974	68.1	130.8	128.3	411.0	183
1975	78.6	85.7	126.5	381.4	160
1976	77.8	117.6	138.0	372.6	201
1977	83.6	99.3	149.6	377.1	173
1978	83.8	85.9	157.9	696.6	145
1979	78.2	82.9	169.7	666.8	140

Source: Central Statistical Office.

TABLE 6

## VISIBLE TRADE SHOWING IMPORTANCE OF MANUFACTURES

(SITC GROUPS 6, 7, 8)

(TT\$ million)

Year	E X P O R T S (f.o.b.)				(I M P O R T S (c.i.f.))			Visible Balance
	Total Excluding Oil UPA	Mineral Fuels and Lubricants	Chemicals	Manufactured Goods, Machinery and Transport Equipment	Total Excluding Oil UPA	Chemicals	Manufactured Goods, Chemicals and Capital Goods	
1951	117.0	-	-	-	154.0	10.9	92.9	-37.0
1960	437.0	-	9.7	7.9	502.0	22.7	216.2	-65.0
1970	487.3	168.2	76.2	47.8	557.3	47.4	321.2	-700.0
1971	467.9	232.3	72.9	70.8	706.1	52.1	459.0	-238.2
1972	524.8	286.5	77.9	55.5	814.5	64.6	527.5	-289.7
1973	697.7	452.8	75.6	62.8	804.1	75.9	486.2	-106.4
1974	1973.5	1566.6	140.9	81.8	1090.7	116.5	628.8	882.8
1975	2206.4	1594.2	136.9	105.6	1615.2	150.0	1094.8	591.2
1976	2643.1	2140.3	151.5	131.5	2119.3	182.7	1469.1	523.8
1977	2891.5	2463.2	153.1	95.7	2324.8	213.4	1581.1	566.7
1978	2999.5	2487.8	204.5	142.8	2825.5	251.3	1950.4	174.0
1979	-	-	-	-	3593.8	-	-	115.1

Source: Central Statistical Office, Quarterly Economic Reports.

TABLE 7

DIRECTION OF TRADE

(Percentage Shares)

Year	1970	1975	1977	1970	1975	1978
Country	Exports to			Imports from		
U. S. A.	46.4	66.4	70.2	16.2	21.6	20.5
Canada	1.4	1.2	1.1	4.4	2.6	3.8
United Kingdom	9.6	3.8	2.0	13.3	8.8	12.5
Venezuela	0	0	0	24.6	0.9	1.1
Saudi Arabia	0	0	0	9.4	26.4	21.9
Japan	0.6	0	0	2.5	3.5	5.5
CARICOM	9.6	6.1	5.4	2.4	2.8	3.4
Other	32.4	22.5	21.3	27.2	33.4	31.4

Source Central Statistical Office, Quarterly Economic Reports.

TABLE 7A

IMPORTANCE OF CARICOM TRADE

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
1. Exports f.o.b.	93	83	90	110	232	237	288	264	265	265
2. Petroleum as % of 1.	34	36	32	39	55	42	52	58	58	59
3. Imports c.i.f.	26	25	40	38	59	91	125	130	159	220
4. Balance (minus 3.)	67	58	50	72	173	146	163	134	106	45
5. Balance Excluding Petroleum	33	20	21	25	45	46	13	-19	-49	-112

Source: Central Statistical Office, Overseas Trade.



TABLE 8  
EXTERNAL TRADE IN MANUFACTURING: 1970-1978  
(TT\$million)

SITC (R) CODE	1970			1972			1974			1976			1978		
	M	X	X <sub>D</sub>	M	X	X <sub>D</sub>	M	X	X <sub>D</sub>	M	X	X <sub>D</sub>	M	X	X <sub>D</sub>
61 Leather	0.52	-	-	0.95	-	-	1.3	-	-	3.2	-	-	3.7	-	-
62 Rubber Manufacturing	3.60	0.5	0.33	4.7	0.88	0.75	9.4	0.66	0.48	17.6	0.36	-	30.1	0.2	-
63 Wood, Cork	3.25	0.2	0.12	3.6	0.12	-	6.3	0.22	0.17	9.9	0.20	0.18	17.8	0.2	-
64 Paper	39.34	2.6	2.4	25.9	3.5	3.4	56.1	7.5	7.3	65.0	12.3	11.8	68.9	10.1	9.8
65 Textile, Yarn, Fabric	39.8	2.1	1.2	54.0	1.7	0.8	66.5	4.7	3.9	102.0	7.6	6.7	117.6	7.6	6.3
66 Non-metal Minerals	8.3	6.4	6.3	11.6	5.0	5.9	18.0	7.1	6.8	32.2	5.2	4.4	63.2	3.8	3.0
67 Iron and Steel	35.6	0.6	0.16	48.2	0.35	0.17	102.5	1.14	0.35	160.2	1.6	0.4	284.0	2.6	0.1
68 Non-ferrous Metals	4.3	-	-	7.2	-	-	10.5	0.24	0.21	11.8	0.39	0.32	21.1	0.2	0.15
69 Manuf. of Metals NES	24.9	-	4.2	45.5	-	3.6	42.1	6.7	5.5	81.5	7.8	7.1	126.0	9.3	7.8
71 Non-electric Machinery	71.8	4.0	0.29	143.7	3.2	-	126.1	4.6	-	388.6	25.8	-	437.8	18.0	0.2
72 Electrical Machinery	26.3	1.3	0.50	48.6	2.44	1.74	40.9	10.9	9.8	100.2	14.7	13.2	182.6	8.4	6.9
73 Transport Equipment	37.4	3.9	0.1	64.5	3.4	-	73.2	3.9	0.18	346.6	14.6	0.13	406.9	48.9	0.4
81 Sanitary Fixtures	2.9	-	-	5.3	-	-	4.9	-	-	7.4	-	-	13.1	-	-
82 Furniture	1.1	1.6	1.6	1.5	0.9	0.9	2.3	1.4	1.3	10.0	1.3	1.3	14.6	0.3	0.3
83 Travel Goods, Handbags	0.9	0.15	0.15	1.2	0.26	0.26	1.3	0.4	0.4	2.0	0.16	0.16	3.3	0.2	0.2
84 Clothing	5.0	10.6	10.5	8.9	15.2	15.2	12.8	16.3	16.2	24.5	17.8	17.7	30.1	15.6	15.3
85 Footwear	8.1	1.1	1.1	8.8	1.6	1.6	10.1	3.1	3.1	18.7	4.3	4.3	21.7	1.7	1.7
86 Photo - Optical Goods	7.0	0.5	-	12.5	0.9	-	11.1	0.8	-	24.6	1.2	-	35.4	0.5	-
89 Misc. Manufactured Items	21.2	4.6	4.1	30.7	7.7	7.1	33.1	12.0	11.1	63.4	16.1	15.1	87.1	15.0	13.9
Total	341.2	40.1	32.8	527.3	47.9	41.2	628.5	81.5	66.6	1469.1	131.2	82.6	1965.0	142.6	74.7

M = Imports c.i.f.

X = Total Exports f.o.b.

X<sub>D</sub> = Domestic Exports f.o.b.

Source: Central Statistical Office, Overseas Trade, Various Issues.

TABLE 9  
GDP AT FACTOR COST (CURRENT PRICES) BY SECTOR

TT\$million	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Export Agriculture	13.0	10.3	10.8	9.5	13.3	19.8	13.7	41.2	46.0	56.6	55.6
Domestic Agriculture	35.7	43.8	51.2	64.2	70.0	94.4	109.1	135.5	139.5	147.5	173.8
Sugar Cultivation and Manufacturing	49.8	49.4	68.8	61.7	88.3	116.9	133.4	125.9	106.5	106.3	107.1
Petroleum: Mining, Refining and Distribution	361.1	358.1	418.1	699.3	1842.4	2635.7	2963.7	3700.5	3566.8	4093.5	4933.7
Manufacturing	150.7	163.0	193.1	220.2	275.5	342.5	429.2	523.1	631.1	773.2	967.5
Electricity and Water	32.2	39.8	45.0	47.9	45.5	58.5	64.7	94.7	125.0	157.7	152.1
Construction and Quarrying	95.4	133.5	160.7	175.8	236.7	277.9	407.4	573.6	652.1	785.1	1135.0
Distribution and Restaurants	260.1	269.5	293.0	375.5	403.2	450.4	676.6	811.8	966.3	1125.9	1322.4
Hotels and Guest Houses	9.3	10.7	10.3	14.0	15.7	19.9	25.9	31.5	38.1	48.0	58.7
Transport, Storage and Communication	239.6	264.4	278.4	292.5	333.2	352.3	376.0	833.2	1058.9	1367.9	1792.3
Finance, Insurance, Real Estate, etc.	138.9	150.6	162.9	200.4	278.8	447.1	535.2	707.4	998.9	1290.0	1596.7
Central and Local Government	136.6	179.6	209.8	233.0	290.9	424.3	472.3	559.8	720.6	1041.5	1150.3
Education and Cultural Community Service	48.4	58.8	65.8	75.5	112.9	129.9	157.6	219.8	262.1	303.5	369.3
Personal Services	60.1	64.8	71.5	85.2	94.9	127.1	137.5	164.2	189.7	203.0	267.4
<b>Total</b>	<b>1630.9</b>	<b>1796.3</b>	<b>2039.4</b>	<b>2554.7</b>	<b>4101.5</b>	<b>5496.7</b>	<b>6502.3</b>	<b>8552.2</b>	<b>9501.6</b>	<b>11499.7</b>	<b>14081.9</b>

Source: Central Statistical Office, The Gross Domestic Product of the Republic of Trinidad and Tobago, Review of the Economy, 1980.

TABLE 9A

SHARES IN THE GDP

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Petroleum	22.0	20.0	20.0	27.0	45.0	48.0	46.0	43.0	38.0	36.0	35.0
Manufacturing	9.0	9.0	10.0	9.0	7.0	6.0	7.0	6.0	7.0	7.0	7.0
Construction	6.0	7.0	8.0	7.0	6.0	5.0	6.0	7.0	7.0	7.0	8.0
Finance	8.5	8.4	8.0	7.8	6.8	8.1	8.2	8.3	10.5	11.2	11.3
Government	8.4	10.0	10.3	9.1	7.1	7.7	7.3	6.9	7.6	9.1	8.2
Rest: Transport, Distribution etc.	46.0	46.0	44.0	40.0	28.0	25.0	26.0	29.0	30.0	30.0	31.0

Source: Central Statistical Office, The Gross Domestic Product of the Republic of Trinidad and Tobago, Review of the Economy, 1980.

TABLE 10

TRENDS IN MANUFACTURING OUTPUT

(Net Output \$m)

ISIC	Sector	1953	1957	1966
31	Food, Beverages and Tobacco <sup>1/</sup>	9.3	17.8	27.6
32	Textiles, Clothing and Footwear	2.5	3.1	5.6
33	Furniture and Wood	1.6	1.9	43.8
34/39	Other Manufacturing	10.3	25.8	
3	Total Manufacturing <sup>2/</sup>	23.7	48.6	77.0

1/ Excludes sugar manufacturing

2/ Excludes oil refining and sugar manufacturing.

Source: Central Statistical Office: Industry 1957; and Survey of Business Establishments, 1966-1968.

TABLE 10A

GROSS DOMESTIC PRODUCT AT FACTOR COST IN  
MANUFACTURING INDUSTRIES (CURRENT PRICES)  
BY INDUSTRY GROUP

(TT\$million)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Food, Beverages and Tobacco	31.1	38.2	46.8	47.0	53.6	62.2	85.5	102.1	115.7	158.6	171.5	211.0	271.1
Textile Garments and Footwear	11.1	14.9	14.3	14.3	16.3	17.6	23.7	25.6	37.4	48.6	69.0	80.9	92.0
Printing, Publishing and Paper	9.9	11.3	13.2	13.8	15.8	19.0	26.1	33.9	34.8	47.7	61.2	71.4	117.8
Wood and Related Products	6.2	7.6	8.3	8.0	8.7	13.5	17.4	24.8	33.4	38.2	45.2	59.9	72.2
Chemicals and Non-metallic Minerals	16.9	20.5	23.4	26.2	33.9	33.6	36.6	42.6	53.4	76.2	81.7	96.5	132.9
Assembly-type and Related Industries	23.4	31.3	37.9	46.6	57.4	63.1	71.1	96.1	135.0	134.1	173.9	216.8	243.5
Miscellaneous Manufacture	4.3	5.3	6.8	7.1	7.4	11.2	15.3	17.4	19.5	19.7	28.6	36.7	38.0
Total:	102.9	129.1	150.7	163.0	193.1	220.2	275.7	342.5	429.2	523.1	631.1	773.2	967.5

Source: Central Statistical Office, The Gross Domestic Product of the Republic of Trinidad and Tobago, The Review of the Economy, 1980.

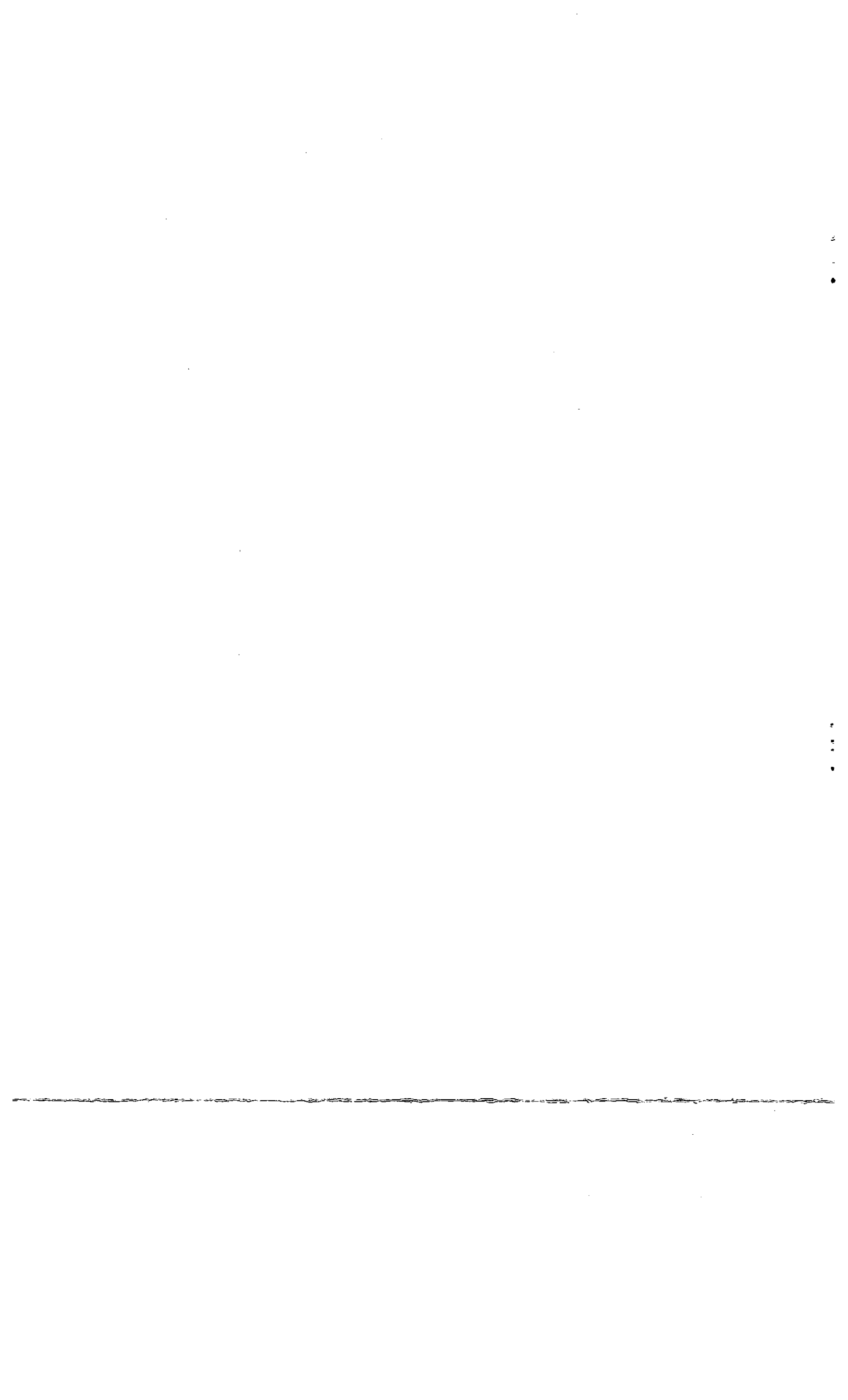


TABLE 11

EMPLOYMENT IN LARGE ESTABLISHMENTS BY INDUSTRY

	No. of Establishments		Total Number Employed	
	1974	1977	1974	1977
Food Processors	86	92	7200	8000
Textiles, Garments, Headwear Footwear	86	89	4500	5900
Printing, Publishing and Paper Converters	46	47	2400	2800
Wood and Related Products	79	74	2200	2200
Chemical and Non-metallic Products	51	62	3200	3900
Assembly-type and Related Industries	83	88	5900	8200
Other Manufacture	27	32	1500	1100

Source: Central Statistical Office.

TABLE 12  
INDEX NUMBERS OF EMPLOYMENT, PRODUCTIVITY  
AND EARNINGS IN MANUFACTURING INDUSTRY

(Average 1971 = 100)

	1972	1973	1974	1975	1976	1977	1978
<u>a) Employment</u>							
Food Processing	115	116	131	125	125	126	129
Drink and Tobacco	105	113	115	120	124	129	129
Textiles and Footwear	100	109	99	104	111	96	88
Printing and Publishing	96	118	129	134	127	135	136
Wood Products	100	97	90	93	101	99	101
Chemical Products	105	109	107	103	104	110	107
Building Materials	102	106	109	108	116	122	133
Assembly-type Industries	118	121	93	102	130	158	166
Metallic Products	108	123	113	105	110	118	129
Miscellaneous Industries	120	158	144	152	149	144	164
<u>b) Productivity</u>							
Food Processing	95	95	100	118	122	121	124
Drink and Tobacco	105	110	116	113	117	109	107
Textiles and Footwear	75	64	85	75	79	83	84
Printing and Publishing	114	112	114	89	89	112	110
Wood Products	77	72	84	82	98	98	71
Chemical Products	104	80	83	91	100	82	87
Building Materials	111	105	93	94	88	91	90
Assembly-type Industries	107	107	121	116	107	106	95
Metallic Products	93	108	123	152	251	338	420
Miscellaneous Industries	114	73	83	93	99	77	93
<u>c) Weekly Earnings</u>							
Food Processing	110	119	131	157	182	207	286
Drink and Tobacco	107	121	145	157	188	235	308
Textiles and Footwear	98	108	120	142	154	195	240



TABLE 12

Continued

	1972	1973	1974	1975	1976	1977	1978
Printing and Publishing	106	118	140	163	185	232	263
Wood Products	104	123	141	167	194	233	275
Chemical Products	113	123	148	184	204	240	299
Building Materials	105	122	135	147	165	230	276
Assembly-type Industries	104	116	160	177	204	248	330
Metallic Products	106	121	132	164	206	274	307
Miscellaneous Industries	102	102	122	137	168	242	302

Source: Central Statistical Office, Annual Statistical Digest, 1978 and earlier.

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