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Multinational enterprises and employment in the Caribbean with special reference to Trinidad and Tobago

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CHAPTER ONE

Multinational Enterprises and Employment in the Caribbean Region: Historial Background and Overview

A. Trends in Foreign Investment in the Caribbean Region

1. The shift from agriculture to extractive and import-substituting industries

The Caribbean region encompasses a large number of island states and countries on the mainland surrounding the Caribbean sea. This overview concentrates on Commonwealth Caribbean countries which were formely British colonies. However, some references are made throughout the study to French and Spanish-speaking Caribbean countries.

All the Caribbean islands were incorporated into the modern world economy in the 16th century as sugar production centers, using slave labour. Merchants and planters organized the 'triangular trade' between Africa, the New World and Western Europe. Because plantation agriculture was organized as one link in an international chain of production and trade, very little processing of food crops was done in the Caribbean islands. The eclipse of the sugar industry by the mid-19th century was entailed in serious economic stagnation.

By the turn of the century, cocoa and coffee provided some export earnings. But in the 1920s, fluctuations in commodity prices resulted in the decline of these agricultural operations. Foreign investors took renewed interest in the Caribbean in the years between World War I and II. But now investment capital was directed into the development of mineral resources for export. Caribbean colonies with mineral reserves received considerable economic stimulus, especially after the mid-1930s. Most important was the petroleum industry, but nickel and bauxite extraction were also significant.

Petroleum featured as Venezuela's most important sector for foreign investment as early as 1920, and provided vital fuel supplies to the United States and Western Europe during World War II. Very large oil refineries were constructed on the islands of Aruba, Curaçao and Trinidad to process Venezuelan oil. These major foreign investments and the construction activity that was centered on the Panama Canal, and later, the U.S. military bases, provided jobs for the first large-scale modern Caribbean working class. Thousands more were employed on the waterfronts, servicing the major construction and shipping operations.

Bauxite mining was initiated on a major scale during and just after World War II, largely by U.S. headquartered multinational corporations. Surinam, Jamaica, Haiti and the Dominican Republic were exporting bauxite ore in the early 1950s. However, unlike the oil companies, the aluminum companies exported the crude oil for processing in the United States, Canada and Sweden. This locational pattern reflected transport costs, energy sources and infrastructural constraints. Nickel was developed in Cuba in the post-war period.

The shift of foreign investment from agriculture to mineral extraction laid the basis for a further shift into import-substituting manufactures. The local white entrepreneurial class, active originally inthe areas of sugar, cocoa and coffee, seized the opportunity to service the mining sector during the 1940s. Members of the planter oligarchy began to diversify their economic activities into construction and related supplier industries. These budding industrialists also began to move capital into manufacturing, food and beverages. They were, in most instances, linked closely to foreign manufacturing firms and banks that had moved into the islands and the north Latin American countries to service the extractive industries. A policy of 'import substitution' was launched by the British colonial authorities in this context during the 1950s, prior to independence; and the United States promoted the same policy throughout the Caribbean.

2. The shift from European to North American investment and markets

The post World War II period was marked by the withdrawal of France and Britain from dominant investment and trade links with their colonies, and the rapid advance of United States corporations into these markets. U.S. military presence in the Caribbean during the war accelerated the trend. Britain

retained commercial and distribution interests, but new investments in extraction and manufacturing came mainly from North America.

Investments by U.S. corporations increased while the share of British corporations declined. The number and value of U.S. firms in the Commonwealth Caribbean have risen sharply since World War II. In 1946 there were 64 firms valued at some $125 million. By 1957 there were 183 firms valued at almost $500 million. The value of U.S investment in the Commonwealth Caribbean in 1959 had increased to $600 million and continued to rise throughout the 1960s and 1970s. While much of this investment was in oil production and refining, it was also concentrated in bauxite. In the post-war years the major North American aluminum multinationals, made large investments in Jamaica, and to a lesser degree, in the other bauxite-rich Caribbean countries.

The shift from Britain to the U.S. as a source of investment capital was paralleled by the re-orientation of markets. The case of Jamaica is illustrative. The bauxite boom profoundly altered the country's trade relations. Before the aluminum corporations began extraction, more than half of Jamaica's trade was with Britain. Sugar, bananas and rum were exported while manufactured goods and foodstuffs were imported. Only about 25% of Jamaica's trade was with the U.S. After 1950, the pattern was reversed. By 1976, over half of Jamaica's exports went to North America. Nearly 60% of all imports came from the U.S. and Canada, including almost 100% of food imports (which account for half the country's food consumption). In contrast to the pre-bauxite period, when nearly half Jamaica's export earnings were generated by sugar, today Jamaica relies on bauxite and the aluminum corporations for almost half its foreign exchange earnings. A similar re-orientation of trade towards North America characterizes the other Caribbean countries. Conversely, North America has become significantly dependent on supplies of bauxite and petroleum products from the Caribbean.

B. The Policies of Caribbean Governments on Multinational Investment

The policies of Caribbean governments as of most other low-income countries on foreign investment have evolved in the post-war period from open-door acceptance to moderate control, and more recently to forms of local participation in ownership-management. This evolution reflects both the changing imperatives of large multinational firms and the expansion of the indigenous business (state and private).

1. Policies to encourage foreign investment in extractive and import-substituting industries

The terms under which resource-development corporations (oil and bauxite companies, especially) operated were determined by Britain prior to independence along the lines of the 'traditional concession'. These terms left all decisions to the corporations, especially in the key areas of (a) pricing and financial accounting, (b) the pace of production and (c) the disposition of the raw material. The governments secured revenues alone, in amounts determined by foreign mining firms.

A main interest of newly-independent Caribbean states was securing adequate revenue to cover recurrent expenses and initiate social-educational services. Mining corporations were offered extremely favourable conditions as they furnished state revenues for these purposes. Because revenue was pegged to production, the governments encouraged multinationals to maximize output. The drawbacks to this included problems for the mineral reserves and competition among Caribbean states for shares of the mineral market.

The subsequently developed programs of new Caribbean states for import-substitution must be seen in the context of mono-culture economies that from their inception were dependent on food imports. Foreign investors were offered generous tax concessions as the main form of incentive. Many of the operations implanted under this program produced consumer goods mainly for the upper stratum of the population (refrigerators, electric stoves) which were out of the reach of the majority. They generated some employment, but as industrialization in general, not enough to absorb the flow of people from stagnating agriculture. The incentive system included monopoly of the internal market (via protective barriers), and efforts were made to extend this monopoly to the Caribbean area through the establishment of common markets, but with limited success.

2. Recent government policies on foreign investment in labour-intensive and export-oriented industries

As the traditional extractive industries and the import-substituting efforts failed to generate sufficient employment as compared to the flows from agriculture by the 1960s joblessness had become an overwhelming problem in most Caribbean states. It became clear also that import-substitution could not lay the basis for large scale industrialization, in particular because of the small size of local markets. The new strategy for addressing these issues involved providing incentives to manufacturing firms in labour-intensive production for export to extra-Caribbean markets. Much of this industrialization was limited to assembly activities (and exporting the finished items); and activated multinational enterprises because of relatively low labour costs and the proximity to the U.S. market. Compared to many other developing areas, however, Caribbean labour costs are high and may act as a factor limiting the success of employment oriented industrialization policies.

i. Policies to reduce unemployment

Caribbean governments therefore have sought to attract labour-intensive manufacturing investment, while devising a series of related policies. Among these policies, during the 1970s are (a) fiscal and other incentives, (b) exchange rate adjustment through devaluation, (c) incomes policies, (d) industrial dispute regulation, and (e) the re-orientation of education and training programs. Special provisions have also been enacted to facilitate export of locally assembled or processed goods and incorporated in the terms of marketing agreements, including those of CARICOM (the 14-state Caribbean common market), CAP and GATT.

3. Participation in joint ventures with foreign capital

Local private entrepreneurs, who had transferred capital from agriculture into commercial operations, were posed to establish joint ventures with foreign manufacturing firms in the 1960s. These partnerships were concentrated in light industry (garments, assembly), foods and beverages. Some construction firms also were operated on joint-venture terms. Tourism, especially in the small islands of the Eastern Caribbean, tended to be the preserve of local businessmen, some of whom formed links with large resource multinationals. Indigenous private capital was spread over several industrial sectors by the 1970s. For example, the locally-owned Trinidadian holding company, has partnerships through over fifty subsidiaries, with foreign capital.

Participation with foreign firms in the public sector has proceeded in agriculture, extractive industries and manufacturing. Banks, services and infrastructural facilities have also been partly localized through purchase of equity by the state.

The international trend towards national ownership of natural resources was manifested in the Caribbean through a series of bauxite take-overs, or partial nationalizations. Guyana's government nationalized 100% of the dominating bauxite multinational in 1971 but faced subsequent marketing and management difficulties. In the early 1970s Jamaica negotiated a partnership with foreign bauxite producers which by 1977 involved a 51% equity interest. For Jamaica the partnership route was seen by the government as a cautious alternative that would not disrupt the delicately-balanced economy. Jamaica opted for gradual control over the bauxite industry, promotion of local processing (bauxite to alumina, alumina to aluminum, and fabrication of metal goods), and the creation of a commodity cartel, the International Bauxite Association (IBA). Jamaica's participation strategy was relatively successful due to bargaining strength based on two factors: the bauxite companies' significant dependence on Jamaican ore, and the massive amounts of capital the companies had invested in alumina processing refineries in the late 1960s. IBA, which united 5 bauxite producers (Jamaica, Guyana, Surinam, Australia and Guinea) accounted for two-thirds of world bauxite production in 1976, and consequently had significant market control.

State participation in the oil industry was led by Venezuela, a major OPEC producer and refiner, and followed in Trinidad by government equity in a Tesoro production venture, and state ownership of a small refinery. Distribution networks were nationalized in both countries. By 1975 Venezuela had nationalized 100% of oil production operations.

Participation or nationalization has led to greater direction by Caribbean states of the "commanding heights" of their economies. But its limitations as a strategy for economic development are gradually being appreciated. Ownership does not necessarily confer control, especially in extractive and other primary commodity sectors which are integrated into an international market network. The costs of management and technology (often purchased from former multinational owners) are high and difficult to regulate. And because the state owns key industries, it has also the sometimes complicated task of maintaining good labour relations and supplying investment capital.

On one level, participation and nationalization increases local firms' share in employment; but most of this employment increase simply results from the transfer of employees from foreign to indigenous categories by virtue of ownership changes. There are no striking instances of larger numbers of jobs being generated by the state as owner, compared with foreign corporate owners. However, the pace of retrenchment in capital intensive oil activities has slowed with government involvement. And the major impetus behind state ownership of equity in the flagging sugar industry is the maintenance of employment levels. Jamaica's policy of buying up estate land and turning it over to small holders for intensive cultivation has made substantial contributions to rural employment generation. Finally, in the smaller islands, tourism has provided the bulk of new jobs. Emigration remains a major channel to employment for small islanders and professionals from all Caribbean countries.

C. Multinational Enterprises and Development in the Caribbean Region

In the post-World War II period multinational enterprises have integrated the Caribbean region into the North American market through mineral and manufactures production and sales. Foreign investment has declined in agriculture and expanded in extraction and processing-assembly industries. As a result of this pattern, a local business class has developed along with state corporations in heavy industry (petrochemicals, mining). The counterpart of this process is the emergence of a modern working class which is highly organized and able to generalize wage levels that prevail in the extractive sector to other industries. Consequently, as mentioned before, the Caribbean is not competitive with many other low-income countries in respect to the cost of labour. This in turn is a disincentive to investment by export-oriented multinational corporations. Nevertheless, presently a main thrust of development strategies in the contemporary Caribbean is employment generation by export-oriented manufacturing industries, normally undertaken by foreign multinationals in partnership with indigenous capital.

1. Sectoral concentration of multinational enterprises

The sectoral concentration of foreign investment has shifted from agriculture to extractive and manufacturing sectors. In the early 1970s foreign capital was withdrawn from these sectors as a result of state initiatives to own key aspects of the economy. Consequently, while multinational enterprises provide managerial, technical and marketing services to the mineral and manufacturing sectors, they are less significant as equity owners. In the mid-1970s several European and Japanese multinationals offered equity to host governments as a means of gaining entry to sectors hitherto dominated by U.S. and Western European capital. This initiative combined with growing economic nationalism to produce the current policy by which U.S. and other corporations prefer, in many instances, to operate in partnership with state or private firms in low-income countries. The U.S. Government's Overseas Private Investment Corporation (OPIC) gives preferential coverage to such partnership arrangements, since they are perceived as less risky. Another dimension of this new strategy is the involvement of international financial institutions in supplying capital to low-income countries for equity purchase.

Under these new terms, multinational corporations are investing basically in capital-intensive processing of Caribbean minerals. Trinidad's oil-petrochemicals-steel developments and the iron-steel complex in Venezuela are

cases in point. Tothe extent that overall labour and production costs can justify investment, multinational enterprises are also establishing garment, electronics and other manufacturing factories mainly for the export market.

2. Transfers of technology by multinational enterprises to the Caribbean Region

The Caribbean is characterized by a relatively high rate of literacy and a developed educational system. These combined with substantial experience in modern production, have given rise to a working class and professional stratum that is well-suited to the needs of industry. Consequently, labour migration is a dominant feature of all Caribbean countries. The drawbacks for the countries include chronic local shortage of technical personnel.

Venezuela has pursued a policy of localizing key technical capabilities related to the oil industry. However, the nationalization arrangements allow ex-concessionaires to supply key services which continue to determine the choice of sources for oilfield and oil refining technology. Similiarly the half-century old Trinidadian oil industry is still serviced primarily by foreign contracting firms, although a number of indigenous construction and supply operations have been established. Jamaica has made more progress in transferring and locally developing bauxite and petroleum technology. The country is currently launching an offshore oil exploration program under production-sharing and service contracts with foreign firms. Of all the Commonwealth Caribbean countries, Jamaica appears most active in monitoring, and actively encouraging the transfer of skills and technology from multinationals, both locally production based and external. It has also begun purchasing technology on the international market.

3. Contributions of multinational enterprises to Caribbean development

After two decades of independence, the countries of the Commonwealth Caribbean have a relatively high per capita income, but face still enormous problems of unemployment. 'Industrialization by invitation' has not resolved this problem. Petroleum wealth has been an important development factor in Venezuela, Trinidad and may do so in Jamaica, if oil exploration produces results.

The extraction of fuel was,together with non-fuel minerals, also the sector of major concentration of post World War II foreign investment. Second most important has been the concentration of such investment in assembly-type manufacturing and processing industries. In contrast to capital-intensive mining, these investments are significant employment generators. The contributions to employment of export-oriented manufacture is affected, however, by the competition of developing countries with lower labour costs. Another issue are variations of foreign investment in the face of changing international market circumstances or local conditions. There has been, for instance, a sharp fall-off in foreign investment in Jamaica in the 1970s in the manufacturing sector.

The contributions of foreign investors to the economic development of the Caribbean region have been profound, and have included the fundamental structuring of island and periphery-Caribbean economies, the modernization of the region, its integration into the North Atlantic market (with some regional links), the exploitation of mineral resources, and the absorption of certain sections of displaced rural populations into assembly-processing type manufacture. It thus became clear, however, that additional policies need to be devised in view of the persistent unemployment problems.

CHAPTER TWO

Multinational Enterprises and the Economy of Trinidad and Tobago

A. Overview

Trinidad and Tobago, a 5,128 square kilometer, two-island country in the extreme south-eastern Caribbean, had a population in 1977 of 1.1 million and a high GNP per capita of US $2,185 in 1976.* For the total labour force of 431,000 in 1977, the average value added per worker was $6,963. Unemployment rates of between 13% and 15% were prevalent in the 1970s. The highly literate population (92%) is ethnically and religiously diverse. As of 1970, 43% were of African descent, 41% of East Indian descent, 14% of mixed ancestry and 2% were of European, Chinese and other derivation. 1/

The economy has been evolving from dependence on topical export agriculture to being oil-based, with a modern semi-industrial complex. In the late 1970s, agriculture's contribution had fallen to about 3% of GDP. This structural transformation from agriculture to mining-manufacturing was impelled by the discovery and exploitation of oil and gas, especially since 1937. (See also Appendix 3). Although hydrocarbons constituted only 15% of GDP up to 1968, this industry was vital as the source of modest surpluses and therefore economic viability. A decline in oil production between 1968 and 1972 resulted in a serious deterioration in the fiscal and balance of payments situations.

As oil production declined, import-substituting manufacture grew in response to powerful government incentives. It constituted 10% of GDP by 1970. There is some tendency for import-substitution to evolve into export-oriented manufacture. Exports of nontraditional products (consisting mainly of processed foods, garments, electrical components, other light manufactures, and increasingly of machinery and equipment), grew rapidly in the late 1960s and early 1970s, from a low base. However, nontraditional exports have failed to grow by more than 10% a year in the later 1970s, and are faced with limited market outlets. This is especially the case given the restrictions on imports imposed by several CARICOM (Caribbean Economic Community) countries where some 50% of Trinidad's exports are directed.

Oil revenues have made it possible for Trinidad to make development expenditures without serious financial constraint. But proven oil reserves are estimated to last only to 1986. Consequently the government is relying on two initiatives: first, develop substantial gas reserves via capital-intensive, export-oriented industrial projects designed to generate revenue for the state; and second, increase production in manufacturing and agriculture in order to (a) diversify exports, (b) substitute imports and (c) generate employment. The gas-export strategy has opened criticism for its dependence on partnerships with multinational corporations, its limited capacity for internal linkage and other spin-offs, and especially its direction of gas to the U.S. market rather than to job-creating petrochemicals and plastics for local use and export. The obstacles to restructuring agriculture may be largely political as the discussion in chapter 5 seems to suggest. As regards the expansion of manufacturing, the major obstacle has been limited profitability for both national and multinational firms, due mainly to relatively high labour costs as well as to government policies of protecting high-cost local production by placing tariffs on a large number of imports on the 'negative list.'

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* Dollars are U.S., unless otherwise specified.

1/ Data obtained from local statistical publications and other sources.

B. Multinational enterprises in Trinidad and Tobago in the 1960s.

1. Sectoral shares of multinational enterprises in receipts, assets and employment 1/

In 1968, of the 17 manufacturing establishments which employed 250 or more people, 10 were foreign-owned. For the manufacturing sector (less food, drink and tobacco) foreign enterprises accounted for 60% of gross output and 38% of employment.

Banking and finance have long been dominated by British, Canadian and US banks and life insurance companies.

In the construction industry, 1966 listings record that 7 of 10 establishments employing 100 or more people were foreign-owned. Foreign construction firms accounted for 42% of gross receipts (43% of net receipts) and for 19% of the total employment in that sector.

In transport, storage and communications the foreign share for 1966 was 60% of gross receipts, 50% of net receipts and 30% of employment. The large, specialized operations such as shipping, air services, bauxite storage and telephones were operated by foreign enterprises and retail trade involves foreign companies which specialize in distribution outlets.

The services sector includes radio, television, advertising, and tourism. Foreign ownership is difficult to measure here because 'settler-type investments' (by persons who have taken out citizenship) may be important here, but they show up in records as locally-owned businesses. Many of the service enterprises may employ fewer than 10 people and thus not appear in the Central Statistical Office surveys of firms with 10 or more employees. However, it is possible to estimate that about 19% of the employment in services was in multinational enterprises and that a minimum of 28% of hotel capacity was then foreign-owned. Further, there was probably a high proportion of foreign investment in business and professional services, especially in the advertising area.

2. Government participation in the 1960s

Investment by multinational corporations was significant in all economic sectors in the late 1960s. The overall picture of foreign involvement can be seen from aggregate data. Private foreign investment represented 67% of the net domestic capital formation undertaken by the business sector. This figure would have been higher had not the government been following a policy of buying equity in foreign companies.

3. Origin of multinational investment

Complete data on the origin of direct foreign investment in Trinidad in the 1960s is not available. However, US investment in oil and petrochemicals is a major component of direct foreign investment. The trend is towards an increase in US involvement and a decrease in the level of British investment. As noted in chapter 1, the Caribbean pattern between 1946 and 1957 shows a quadrupling of the number of US firms and value of investment, a trend which continued.

C. Multinational enterprises in Trinidad in the 1970s

1. Changes in sectoral importance

The relative economic contributions of agriculture, petroleum and manufacturing have shifted dramatically over the years. As recently as 1970, one-quarter of the labour force was still employed in agriculture, a figure which declined to 16% by 1977. The coincidence of the oil boom and stagnation of agriculture is characteristic of all the oil-rich low-income economies in the 1970s. By 1977 petroleum related activities were contributing approximately one-half of GDP and fully 80% of export earnings, although the direct employment effect was much slighter. Petroleum production and earnings had begun to decline in the late 1960s, but the international price increase of 1973 led to a dramatic increase in earnings and stimulated additional production of what,

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1/ Data used in this chapter are drawn from government statistics

under higher prices, were now 'commercial reserves'. Manufacturing has been promoted in Trinidad and Tobago since independence, so that by the mid-1970s its contribution to GDP was about 10% and it supplied about 16% of employment.

2. Investment by multinational enterprises

In the second decade of Trinidadian independence, investment by multinationals continued to play a critical role, accounting for approximately 25% of gross domestic investment. The earliest involvement of multinationals, or their antecedents, was in plantation agriculture. In the early 1970s the government acquired majority interests in the country's largest sugar estates, which had been British-owned.

The bulk of multinational investment has been in the petroleum industry. Of $650 million direct investment of US enterprises in 1974, for example, $480 million were in petroleum, $90 million in manufacturing, and $80 million in other industries. By world standards, however, Trinidad is not a major oil producer, with output of only 230,000 barrels per day (BPD) in 1977. Two major refineries are located in Trinidad. By far the more important is the refinery owned by a US based multinational (360,000 BPD), but also significant is the Trintoc (state-owned) refinery. Trinidad, like Aruba and Curaçao, like Singapore and Rotterdam, is an important world refinery center, serving primarily the US market with a throughput of some 450,000 BPD. Significant petrochemical facilities are located in Trinidad and additional ones are planned, as discussed below.

The main oil producing company in 1978 was a 100% US-owned enterprise with 60% of the volume, all from offshore wells south-east of Trinidad. Since oil production-refining accounts for about half of GDP, and exploration-production over two-thirds of that share, it is clear that the enterprises' contribution to the overall GDP was about 20% in 1978. Because of the capital intensity of the industry the company employed, however, only about 600 workers. As chapter 3 indicates, the company relied heavily on contract labour (personnel not on permanent payroll), which increased considerably its total employment impact.

3. The Caribbean as a market

Manufacturing in Trinidad has been promoted through a wide ranging system of incentives. The advent of CARICOM has given further impetus to import substitution manufacturing, although this impetus has been constrained by import strictures imposed recently by Jamaica and Guyana. The population of CARICOM is about 5 million, a small market, given the scale economies of modern production plants. Thus, Trinidad's government has encouraged the development of export-oriented foreign investment. But as yet, this does not loom large in the overall foreign investment picture. The bulk of multinational involvement in manufacturing has been assembly-type, which produces limited value-added at the local level and was characterized by the employment of unskilled, often female, labour.

The construction industry, which accounts for about 7% of GDP also has a significant foreign presence. This is mainly in the form of foreign contractors participating with local firms on various contruction projects. Of Trinidad's eight commercial banks, several were foreign-owned until 1979, but have all been localised since.

4. The importance of U.S. investment in Trinidad

The US has replaced the UK both as Trinidad's major source of foreign investment and also as its major trading partner. This process has accelerated in recent years. From 1973 to 1978 the US share of Trinidad and Tobago's exports increased from 44% to 76%, while the UK share declined from 8% to 2%. In the same period, the US share of Trinidad and Tobago's imports increased from 30% to 34% (culminating in 1976 with 45%), the UK share on the other hand declined only from 21% to 20% (reaching its lowest in 1976 with 17%). When British Petroleum phased out its operations in 1968, a US enterprise and the Government of Trinidad and Tobago jointly purchased the company, a joint venture known as Trinidad Tesoro Petroleum Co. Ltd (the government's first venture into the oil industry with a participation of 50.1%).

5. Joint ventures and the climate for foreign investment

The government actively encourages foreign investment in Trinidad. Generally, foreign firms are expected to set up joint ventures with local firms or with the government. The foreign partner usually supplies the management. Government policy calls for priority state participation in investment involving energy-based projects. In other sectors, foreign investors are expected to participate on a joint-venture basis with local firms, with at least 51% of the equity locally held, although exceptions may be made. The government is particularly interested in encouraging foreign investors to develop export markets and offers assistance to that end.

The Trinidad and Tobago Businessmen's Association stated in 1977 that "a healthy investment climate exists which is the result of a deliberate policy adopted by the Government to attract overseas capital". 1/ The flexible character of the state's participation policy is illustrated by the fact that foreign equity participation is usually 49% but where a project is expected to confer significant benefits to the national economy, equity participation to the extent of 100% is possible.

While multinational corporations are able to borrow locally for investment, they are required to bring in four TT dollars for every one they borrow. The outflow of capital exceeded its import by multinationals, in the decade ending in 1975, but the reverse situation prevailed in 1976-78.

The government became heavily involved in joint ventures with multinational corporations. Table 2-1 lists the firms in which the state had interests in 1979. It shows that the state was the majority owner in six firms and the minority partner in eight other companies, mainly with local private capital. While these fourteen joint-ventures reflect the level of public sector participation as of May 1979, there are additional firms, as noted above, which are 100% government-owned.

Two types of criticism of the government's policy of participation have been expressed in Trinidad. First, the local private sector has sought to expand with the backing of the state. In response to this thrust, the government announced in the 1979 Budget Speech, a new policy of state 'divestment'. Shares in the publically-owned National Commercial Bank were sold, and a percentage of the shares in the National Gas Company will be transferred to the private sector by the end of 1979. State participation in a foreign hotel chain was reduced in favour of nationals, and the Budget announced that "With the report of the Sugar Commission of Inquiry, early steps will be taken to move into divestment in the sugar field, paying particular attention to the cane farmers, the sugar workers and their recognised associations." In fact, sugar workers have been requesting a profit-sharing arrangement which would enable them to purchase shares in the operations with their allocation of profits. The second type of concern over the rapid expansion of public corporations arises from fears about excessive state power.

6. Investment incentives in the 1970s

The government extends a number of different investment incentives. It distinguishes two categories of enterprises. The first category has three subdivisions, depending on the amount of value-added as a percentage of the value of sales. Tax exemptions range from 5 to 9 years. The second major category consists of highly capital intensive, with a capital investment of at least $50 million, or ones which produce entirely for export outside of CARICOM. This policy instrument is meant mainly to foster export-oriented multinational investment. Ten year tax exemptions are granted to the enterprises regardless of local value-added content.

The Trinidad Government extends other sorts of incentives to foreign investors. Certain industries may continue to import their raw materials and capital goods free of import duties even after the expiration of the tax holiday.

1/ Businessmen's Guide

Table 2-1
JOINT VENTURE AGREEMENTS BETWEEN GOVERNMENT AND PRIVATE COMPANIES

1. Firms with Government Majority Participation

	Firm	Private Partner
(a)	Trinidad & Tobago Meat Processors	Local Private Interest
(b)	Trinidad & Tobago Development Finance Co.	Local Private Interests
(c)	Trinidad & Tobago External Telecommunications Ltd. (TEXTEL)	Cable & Wireless (U.K.) Ltd.
(d)	Agricultural Development Bank	Local Private Interests
(e)	Trinidad Nitrogen Co. Ltd. (TRINGEN)	W. R. Grace Ltd.
(f)	Fertilizers Trinidad Ltd. (FERTRIN)	Amoco

2. Firms with Government Minority Participation

	Firm	Private Partners
(a)	Workers Bank of Trinidad & Tobago	Private Local Investors
(b)	National Brewing Co. Ltd.	Heineken Beer Ltd. (Holland) (Local Private Investors)
(c)	Neal & Massy Holdings Ltd.	Private local investors
(d)	Maritime Life (Caribbean) Ltd.	Maritime Life (Canada (Local Private Investors)
(e)	Angostura Ltd.	Private Local Investors
(f)	Allied Inn-keepers of T'dad & T'go	Private Local Investors
(g)	Trinidad & Tobago Mortgage Finance Company	Private Local Investors
(h)	Caribbean Investment Corporation	Other Caricom Governments

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Other forms of tax relief are granted, such as special export allowances. The government provided fully-developed industrial estate sites to approved investors. The country also has a policy of quantitative restriction on the import of certain types of commodities which are likely to be manufactured in Trinidad, thus giving local producers advantages on the market.

7. Energy-based industrialization

The bulk of foreign investment is concentrated in oil and related activities. The government has embarked on a programme of industrialization based upon the promotion of energy-based industry which will utilize its petroleum and natural gas resources. To this end it has entered into a number of joint ventures with major multinationals and established a national Petroleum Marketing Company.1/

The primary market for the output of these facilities will be the U.S. These projects are highly capital intensive and except for the initial construction stage, which often involves foreign contracts, their direct employment effects will be limited. It is estimated that by 1985 these ventures may employ 5,000 persons. The government expects that small and medium scale downstream industries can be developed based upon the energy-oriented projects generating additional indirect employment.

8. Personnel and technology transfer

Lack of skilled manpower is sometimes cited as a problem for the economic development of Trinidad, as for other low-income countries. In reality, thousands of skilled workers have emigrated from Trinidad in the last decade. For instance, in 1977 1,295 classified workers left the country and at the time same there has been an important influx into the country (1,479 in 1977) of such workers, mostly professional, technical and related workers.2/ The management contracts into which the government enters now generally require that the foreign firm supplying management services also train Trinidadians to take on these functions. Since most of these large projects are quite recent, there are only a few examples as yet of practical experience with such measures.

1/ For more details: Republic of Trinidad and Tobago, Central Statistical Office: Capital Accounts of the Petroleum Sector 1966-1976 (Port of Spain, 1979), pp. vii-ix.

2/ From Trinidad's International Travel Report and Central Statistical Office, Republic of Trinidad and Tobago: Worker Permits Report 1977 (Port of Spain, 1979), table 23.

Table 2-2

Energy-based Joint Ventures in Trinidad, 1977.

Name of Trinidad & Tobago Co.	Foreign Participatant	Project	Level of foreign Participation	Foreign Contractors or Consultants	Estimated Completion Date	Estimated Cost of Project	Remarks
Trinidad Nitrogen Co. Ltd. (TRINGEN)	W.R. GRACE Co.	Fertiliser	49%	FLUOR CORP.		TT$207m.	Plant is now in its final stages of construction
Iron & Steel Co. of T'dad & T'bgo	Korf Industries	Sponge Iron. Billets	33%	HATCH Associates Ltd. Midrex Corp.	1980/82	$653 m. TT	Feasibility studies completed. Project defined, Basic & detailed engineering in progress. Site preparation in progress
Company Not Yet formed.	Amoco	Fertilisers	49%	No decision	1978	$41 m.	Agreement in final stages of negotiations
National Gas Co.		Natural Gas Pipeline	None	Amoco Harbert Construction Corp.	1977	$72 m.	
		Natural Gas		Oceaneering Ltd		$80 m.	
W.A.S.A. 1		Water treatment plant		Rexach Construction Co.		$104 m.	One of six contracts for Caroni/Arena Water supply project

Name of Trinidad & Tobago company	Foreign Participation	Project	Level of Foreign Participation	Foreign Contractors or Consultants	Estimated Completion Data	Estimated Cost of Project	Remarks
W.A.S.A.	–	Caroni/ Arena Water Project	–	–	1980	$266m.	4 Treatment Plants under Construction.
Co-ordinating Task Force	–	Furfural	No decision	No decision	1978	$ 41m.	Feasibility studies and preliminary engineering completed. Marketing arrangements to be finalised by 3rd quarter 1977.
Co-ordinating Task Force	No decision	Polyester Fibre	No decision	No decision	1979	$ 85m.	Market study completed, evaluation in progress.
Point Lisas Industrial Port Development Corp. (PLIPDECO)	None	Point Lisas Marine Facilities	None	–	1979	$ 41m.	Contract awarded for dredging. Dredging started in June 1977. Design of dock in progress.
"	None	Industrial Estate	None	–	1977	$ 19m.	Drainage studies being evaluated Site preparation for steel mill in progress. Construction for Tringen, Power Power Plant, Dry Blend Fertilizer Plant in progress. Installation of Natural Gas distribution leader completed. Design of water distribution system in progress. Roadwork in progress.

PROMOTIONS
25th May, 1979.

CHAPTER THREE

Direct and Indirect Employment Effects of Multinational Enterprises

A. Multinationals and Employment: Conceptual Issues

1. Conceptual issues defined

A number of conceptual issues concerning the employment effects of multinationals on the economy of Trinidad and Tobago must be addressed at the outset of this chapter. First, how should joint-ventures between multinationals and locally owned firms be treated? Second, do statistical data on employment convey an accurate impression of the role and importance of multinationals in the Trinidad economy? Third, can a meaningful comparison be made between the operations of multinationals and locally owned firms in terms of their impact on employment? Finally, can a meaningful estimate of the indirect impact of multinationals on employment be devised, given the severly limited data available?

The current policy of the government of Trinidad and Tobago is to encourage joint-ventures between multinational corporations and both local private and government enterprises. Empirically it this becomes difficult to distinguish between multinational and locally owned firms. The practice followed in this study is to allocate assets and employment completely to the majority owner, be it local or foreign. Unless otherwise indicated all data are derived from sources of the Central Statistical Office of Trinidad and Tobago (CSO).

Other conceptual problems are less prone to a simple solution. This study attempts to uncover the extent to which the Trinidad workforce is directly and indirectly employed by multinational enterprises. However, even in cases where majority local ownership exists, the foreign partner often supplies the management and therefore contributes considerably to the development of the enterprise in question. Indeed, the hoped for transfer of managerial know-how is the prime consideration on the part of the government in encouraging such relationships. A further problem is that any direct comparison of the employment impact of multinationals and local firms can be misleading since, even within a given sector, multinationals are typically engaged in different lines of business than are locally owned firms. Finally, in view of the structured role which multinational enterprises have played in the total economy of the country, it can be argued that indeed all employment generated in Trinidad is on some level linked to the presence of the multinationals directly or indirectly.

2. Neal and Massy: An Illustration of the Conceptual Problem

The firm of Neal and Massy, the largest locally owned private employer in Trinidad, is the major exemplar of the government's policy of encouraging joint-ventures between foreign multinationals and local firms and, as such, concretely illustrates the conceptual problems encountered. Neal and Massy has equity interests, both majority and minority, in at least 56 Trinidad corporations, often in partnership with multinational firms. It thus functions as a major conduit for multinational enterprise activity in the economy, by acting as the local partner for multinational capital in local ventures.

This local holding company has itself emerged so to speak as a minor multinational corporation, in effect, a junior partner of international capital, as Neal and Massy now has holdings throughout the Caribbean region. The firm produces and distributes from Trinidad-based plants in the following countries and territories of the Caribbean: Jamaica, Surinam, Antigua, Grenada, Barbados, St. Lucia, Belize, Martinique, Guadeloupe, and Cayenne.

Neal and Massy was established in 1932. Already in the mid-1970s the Trinidad government itself acquired a 49% equity interest in Neal and Massy. Thus, although Neal and Massy is considered a local firm, and is statistically treated as such, it is in fact an adjunct to international capital, underlining the conceptual problems involved in a study as the present report.

B. Ownership Patterns in the Economy of Trinidad and Tobago

As Table 3-1 indicates, the most notable feature of the pattern of business ownership in Trinidad is that massive foreign ownership is spread throughout most sectors. In the 12 sectors for which CSO data by ownership are available, 41% of the assets are foreign owned. Foreign ownership is heavily concentrated in the key sectors of the economy, petroleum and manufacturing. In petroleum, 73% of the assets are foreign owned, while the corresponding figure for the combined manufacturing sectors is 41%. Ownership data are not available for the hotel and finance sectors, which are also likely to have significant levels of foreign ownership.

1. The Petroleum Sector

The most extensive level of foreign ownership is the petroleum sector where about 73% of the assets are foreign owned. The foreign presence in oil is primarily US. The two exceptions to US ownership are a UK owned and a German state-owned firm. In 1974 the Trinidad and Tobago Oil Company, Trintoc, was formed to take over the assets of a British oil firm in Trinidad. There are, in addition, 5 oilfield service contracting firms engaged in various types of construction, which are incorporated in the Cayman Islands, the Bahamas, and other Caribbean areas, and which are probably US-owned.

2. The Assembly and Related Sector

The assembly sector has the second highest level of foreign ownership, with approximately 57% of the total assets being foreign owned. This area of the economy accounted for 21% of total manufacturing assets in 1976 and it is a sector in which the modern multinational is likely to invest. This follows from multinationals' interest in spreading production operations in such a way as to both minimize wage costs and minimize the overall uncertainty of disruption, two considerations central to the generation of a new international division of labour.

There are 33 foreign and local private enterprises in this sector. Of these 14 are foreign owned by nationals of 7 different countries, with the heaviest concentration being British (7 out of 14). Local firms appear to be concentrated in the simpler type of assembly operation (e.g., nail manufacture).

3. The Printing, Publishing and Paper Conversion Sector

The printing, publishing and paper conversion sector has the third highest level of foreign ownership, with approximately 47% of the assets being foreign owned. Of the 16 companies in this sector, 4 are foreign owned, by nationals of the US, UK, and Canada. The multinationals are engaged in the manufacture of containers and boxes, while the local firms primarily engage in printing and publishing. This sector contains approximately 6% of total manufacturing assets in Trinidad.

4. The Chemical and Non-Metallic Sector

The chemical and non-metallic sector has the fourth highest level of foreign ownership, with 42% of its assets being foreign owned. This sector contains about 15% of total manufacturing assets in the Trinidad economy. Of the 28 chemical and non-metallic firms, 10 are foreign owned by nationals of the UK, US, Canada, Sweden and Jamaica. Three of the locally owned firms have significant foreign minority participation. Foreign owned firms are more likely to be engaged in basic chemical manufacture.

5. The Food, Drink and Tobacco Sector

The food, drink and tobacco sector has the fifth highest level of foreign ownership, with 35% of its assets being foreign owned. It contains about 33% of the total manufacturing assets of the economy. Of 45 firms in this sector, 8 are foreign owned by nationals of the UK, Canada, US and Switzerland. Two local firms, one private and one state-owned, have significant foreign minority participation in equity.

Table 3-1

Asset Ownership* by Sector in the Economy of Trinidad, 1976

Sector	Total Assets (TT$000)	Ownership Foreign	Local	Government
Sugar	193,189		16%	84%
Petroleum	2,358,129	73%	1%	26%
Food, Drink, and Tobacco	247,681	35%	53%	12%
Textiles, Garments, and Footwear	49,800	32%	68%	
Printing, Publishings, and Paper Conversion	47,169	47%	35%	18%
Wood and Related Products	34,876	6%	68%	26%
Chemical and Non-Metallic	108,567	42%	58%	
Assembly Type and Related	158,218	57%	43%	
Electricity and Water	464,057			100%
Construction	285,429	3%	97%	
Distribution	836,725	9%	91%	
Transport, Storage, and Communication	317,458	4%	8%	88%

Source: Central Statistical Office, Trinidad and Tobago

* Ownership is calculated by dividing foreign-owned, local privately-owned, and government owned assets in each sector by total sectoral assets.

6. The Textile, Garment and Footwear Sector

The textile, garment and footwear sector has the sixth highest level of foreign ownership, with 32% of its assets being foreign owned. It contains about 7% of the total manufacturing assets in Trinidad. Of 27 firms, 7 are foreign owned by nationals of the US, Canada, Japan and Guyana.

7. Other Sectors

In the remaining 6 sectors for which the Central Statistical Office disposes of individual firm data, foreign ownership is low, ranging from 9% in the distribution sector, to none at all in the sugar and the electricity and water sectors. In the distribution sector, of 68 firms reporting to the CSO, 19 are foreign owned by nationals of the UK, US, Sweden, the Bahamas and Bermuda. In the wood and related products sector, 6% of the assets are foreign owned; 2 of 9 firms in this sector are foreign owned but information on nationality of ownership is not available. The transportation, communication, and storage sector shows 4% foreign ownership; of 44 firms in this sector, 4 are foreign owned by nationals of the UK and Canada. The construction sector is represented in the CSO data as having only 3% foreign ownership; of 25 firms reporting to the CSO, 6 are foreign owned by nationals of the US and UK.

8. Summary

In summary, the review of ownership patterns by sector reveals that there is massive multinational penetration into the economy of Trinidad and Tobago, with 41% of the assets in the 12 sectors for which ownership data are available being owned by foreigners in 1976. This is largely the result of the domination of the vital petroleum sector by multinational capital derived almost entirely from the United States. But there are also significant levels of foreign ownership spread throughout other sectors, notably assembly and related; chemical and non-metallic; printing, publishing, and paper conversion; food, drink and tobacco; and textiles, garments, and footwear. In these 5 sectors foreign ownership is one-third or more of total assets.

C. Employment by Multinational and Local Firms in Trinidad

In 1977, 44% of the labour force in the combined petroleum and manufacturing sectors worked for multinational corporations (see Appendix 3-1 for a description of the adjustment procedure used to generate this estimate). For the economy as a whole, including such sectors as government services and education, the multinational share of employment was approximately 10%. These shares were essentially unchanged from 1973.

1. Employment in the Petroleum Sector

According to the Central Statistical Office, employment in the petroleum sector equalled 16,189 workers in 1976. Companies in this sector can be divided into those firms engaged in direct petroleum work in the oil production, refining, and petrochemicals areas and those firms which provide services to the direct petroleum work. There are foreign and nationally owned companies in both petroleum proper activities and in oilfield service contracting activities.

i. The Data: The data from which this discussion of employment in the petroleum sector is drawn are of two types. First, the Central Statistical Office figures indicate the number of employees by firm in 1973 and 1977. Second, the Ministry of Petroleum supplied data on the number of persons on each oil company payroll and on the numbers of contract workers employed by each oil company yearly from 1967 through 1978. This company data is further broken down into numbers of Trinidad nationals and expatriate workers in each function (producing, refining, marketing, and general administration).

In the discussion which follows, both employment figures and asset calculations will allocate the share of the joint-venture enterprise, Trinidad-Tesoro, 49.9% to the multinational sector and 50.1% to the government non-financial sector.

ii. Employment Trends in Oil: CSO Data: The total workforce in the oil industry for which individual firm data are available equalled 15,117 in 1977. Of these 10,845 worked for multinational corporations, 2,333 worked for govern-

ment enterprises and 1,999 worked for local private firms. Thus, 70% of the employment in this sector was generated by multinational firms, 17% by government enterprices and 13% by local private firms (Table 3-2).

The 13% employed by local private firms is entirely in the oilfield services subsector, and particularly in construction, light engineering, welding and other related services (ground maintenance, food supply, transport). This represents an indirect employment effect of the multinational presence. The assets of such service firms amount to only 1% of the total assets of the petroleum sector.

Excluding oilfield services, and focusing only on production, refining and petrochemicals, 81% of the employment in this category was generated by multinational firms. The remaining 19% was generated by government enterprises in the oil sector.

According to CSO data, there has been a downward trend in the share of multinational firms in total employment in this sector. In 1973 total reported employment was 13,368 workers. Of these, multinational firms employed some 86%, government firms 6% and local private firms 8%. Thus, the multinational share appears to have fallen by about 16 percentage points between 1973 and 1977. Half of this shift resulted from the creation of Trintoc, which shifted the work force of a British owned multinational to the state owned category. Some of the shift may have been induced by the beginning of significant offshore production in 1973. This stimulus resulted in a doubling of the labour force employed by small local firms which service the major, predominantly foreign owned, producers.

The downward trend in the share of multinational employment appears less important when the scope of analysis is limited to the production-refining-petrochemicals subsector. In 1973 the share of multinational enterprise in this area was 93% and of government enterprise 7%. Thus, the multinational share has fallen about 12 percentage points over the 1973-77 period, while the government share has increased by the same amount. Two-thirds of this sift is due to the creation of Trintoc. The prime cause of the rest of this shift was a cut in the labour force of an American enterprise by some 1000 workers (from 8649 to 7628 between 1973 and 1977). As a result of a low level of refining activity in a huge refinery, which has been operating at only about half capacity in recent years.

iii. Employment Trends in Oil: Ministry of Petroleum Data: The more detailed Ministry of Petroleum data are only partially consistent with the CSO data analyzed above. These data allow trends in the production and refining subsector to be analyzed for the years 1967 through 1978 and also make possible an examination of the importance of contract labour in the petroleum industry.

As Table 3-3 indicates, despite the enormous boom in oil revenues which began in 1973 and the increase in exploration and production which the international price increase induced, the number of nationals directly employed on company payrolls was only slightly changed in the 12 year period. In fact, this form of employment actually declined somewhat from 11,409 workers in 1967 to 11,272 workers in 1978. Peak employment occurred in 1974, when it reached 11,854 workers.

When expatriates are included the pattern remains unchanged, with total personnel on company payrolls reaching 11,681 in 1967 and 11,397 in 1978, after peaking at 12,038 in 1974. The percentage of expatriates on company payrolls has steadily declined from 2.3% of the oil workforce in 1967 to 1.1% of the workforce in 1978 (Table 3-3) and was nearly exclusively connected with the initiative of one major enterprise.

However, when the contract work force is included along with those on company payrolls a rather different picture emerges, as can be seen in Table 3-4. Instead of employment stagnation in the production and refining subsector, employment in this area of the oil industry increases from 13,364 nationals employed in 1967 to 15,592 nationals employed in 1978 (+ 17%). The data indicate that the oil companies have made increasing use of contract labour in production and refining over this period, since the proportion of nationals directly on oil

Table 3-2

Employment in Trinidad by Sector and Ownership

Sector	Employment (1976)	Employment Shares (1977)* Foreign	Local	Government
Sugar	11,702		17%	83%
Petroleum	16,189	70%	13%	17%
Food, Drink, and Tobacco	7,762	28%	65%	7%
Textiles, Garments, and Footwear	6,800	26%	74%	
Printing, Publishing, and Paper Conversion	3,133	26%	51%	23%
Wood and Related Products	3,175	5%	69%	26%
Chemical and Non-Metallic	3,422	34%	66%	
Assembly Type and Related	7,276	47%	53%	
Electricity and Water	5,395			100%
Construction	45,117	9%	91%	
Distribution	59,222	9%	91%	
Transport, Storage, and Communication	26,800	3%	11%	86%

Source: Central Statistical Office, Trinidad and Tobago

* See Appendix 1 for a description of the procedure used to calculate employment shares.

Table 3-3

Personnel on Oil Company* Payrolls, 1967 to 1978

Year	Nationals	Expatriates	Total	Expatriates as Percent of Total
1967	11,409	272	11,681	2.3%
1968	10,723	244	10,967	2.2%
1969	10,412	203	10,615	1.9%
1970	10,333	204	10,537	1.9%
1971	10,997	213	11,210	1.9%
1972	11,610	218	11,828	1.8%
1973	11,505	190	11,695	1.6%
1974	11,854	184	12,038	1.5%
1975	11,656	161	11,817	1.4%
1976	11,530	156	11,686	1.3%
1977	11,547	153	11,700	1.3%
1978	11,272	125	11,397	1.1%

Source: Ministry of Petroleum, Trinidad and Tobago

* These data cover the following firms: Texaco, Amoco, Premier Consolidated, Deminex, Trintoc, Trinidad-Tesoro, and Trinmar.

Table 3-4

Trinidad Nationals Employed by Oil Companies,* 1967 to 1978

Year	On Company Payrolls	Contract Work Force	Total	On Company Payrolls As Percent Of Total
1967	11,409	1955	13,365	85.4%
1968	10,723	1653	12,376	86.6%
1969	10,412	1613	12,025	86.6%
1970	10,333	2761	13,094	78.9%
1971	10,997	2826	13,823	79.6%
1972	11,610	2340	13,950	83.2%
1973	11,505	2560	14,065	81.2%
1974	11,854	2701	14,555	81.4%
1975	11,656	2368	14,024	83.1%
1976	11,530	3416	14,946	77.1%
1977	11,547	3349	14,806	78.0%
1978	11,272	4320	15,592	72.3%

Source: Ministry of Petroleum, Trinidad and Tobago

* These data cover the following firms: Texaco, Amoco, Premier Consolidated, Deminex, Trintoc, Trinidad-Tesoro, and Trinmar.

company payrolls in this category has declined from 85% in 1967 to 72% of the total payroll and contractual employment in 1978 (Table 3-4). This phenomenon is mainly the result of the practice of two major multinational enterprises.

An examination of the role of contract labour also indicates that the decline in the relative importance of expatriate personnel is more apparent than real if the total situation is considered. Instead of the steady downward trend indicated in the payroll data, there is no trend at all, with the percentage of expatriate workers equal to 2% of the total production and refining labour force in both 1967 and 1978.

Of the more detailed Ministry of Petroleum data we used for analysis it can be seen that the trends indicated by the CSO data may be somewhat exaggerated. As indicated in Table 3-5, the share of multinational enterprises payroll employment in the production-refining subsector, according to Ministry of Petroleum data, was 93% in 1970 and 83% in 1978, i.e. a smaller decline is shown than indicated in the CSO data. The bulk of this decline is due to the creation of the state-owned Trintoc. When contract workers are included the downward trend is further reduced: a decline from 94% of the labour force employed by multinationals in 1970 to 88% of the labour force employed by multinationals in 1978. It can therefore be concluded that the entire change in shares of employment in oil production and refining is due to the creation of Trintoc. In these words, if adjustment is made for this government initiated structural change in ownership, the multinational enterprises have maintained their employment level during the last 10-12 years, whether a more structured or a more changed definition of employment is used.

iv. Multinationals vs. National Firms: Average Employment: There is a large amount of variation in firm size by employment in the petroleum sector. Companies range from small service firms which employ 3 or 4 workers, up through the biggest multinational which employed over 10,000 workers in 1978 (including contract workers and was, in fact, the largest private employer in Trinidad). In the oilfield service firm category, average firm size by employment was 80 workers for local private firms in 1977, while for foreign firms in this category it was 50 workers. The capital-labour ratio for local firms was approximately TT$13,000 per worker. Capital-labour ratios for foreign firms in this category could not be calculated for lack of sufficient data. There are grounds to assume, however, that the capital-labour ratio for foreign owned firms is higher than for locally owned firms. This follows from the specialized, technical character of many foreign oilfield contracting companies.

In the production-refining-petrochemicals subsector, the average firm size for government firms was 933 in 1976. For foreign owned oil firms average employment is larger and is estimated at 1544 (excluding contract workers), (Table 3-6).

v. Multinational vs. National Oil Firms: Capital-Labour Ratios: Capital-labour ratios for government and multinational firms in the petroleum industry are very high: approximately TT$230,000 per worker for government firms and TT$160,000 per worker for multinationals (Table 3-7). This does not mean that the state enterprises are indeed more capital intensive than the multinationals, since the calculation for the multinational firms includes small oilfield service firms. If the state oil sector is considered together with the private Trinidadian oilfield service firms, their combined average capital-labour ratio equals TT$130,000, i.e. it is much the same than the ratio for the multinationals. In any case, these figures illustrate the fact that an extremely large capital investment is necessary to generate a single job in the oil industry. In fact, it takes about 5 times the investment to directly generate a job in the petroleum sector than it does in chemicals, the sector with the second highest capital-labour ratio. On the other hand, since the petroleum sector generates approximately 80% of the governments' revenues, it can potentially at least have a large indirect employment effect through government public finance.

Table 3-5

Employment Trends in Petroleum* by Ownership, 1970 to 1978

Year	Employment Shares, Including Only Personnel On Company Payrolls		Employment Shares, Total Labour Force, Including Contract Work Force	
	State Owned Firms	Foreign Owned Firms	State Owned Firms	Foreign Owned Firms
1970	6.7%	93.3%	6.0%	94.0%
1971	7.0%	93.0%	6.5%	93.5%
1972	6.7%	93.3%	6.5%	93.5%
1973	6.8%	93.2%	6.7%	93.3%
1974	15.2%	84.8%	12.3%	87.7%
1975	15.8%	84.2%	13.0%	87.0%
1976	15.1%	84.9%	11.4%	88.6%
1977	16.1%	83.9%	12.4%	87.6%
1978	16.9%	83.1%	12.6%	87.4%

Source: Ministry of Petroleum, Trinidad and Tobago

* This includes crude and natural gas production and petroleum refining.

vi. Value-added in the Petroleum Sector: Value-added by the petroleum sector equalled TT$2,981,020,000 in 1976, approximately one-half of GDP. Total labour payments in this sector amounted to TT$258,363,000. Value added per worker in this sector amounted to TT$184,000, 10 times greater than in assembly, the sector with the second highest value-added per worker. The average annual wage amounted to approximately TT$16,000 per worker, nearly twice as high as the sectoral average in chemicals, the second highest paying sector (Table 3-8 Naturally, in this table no adjustment is made for the different employment and skill-mix in the various sectors.

2. Employment in the Assembly and Related Sector

Total employment in the assembly sector equalled 7,276 workers in 1976. The adjusted multinational enterprise share of sectoral employment equalled 47% in 1977, the remaining 53% being employed by local private firms (see Appendix 3.1 for a description of the adjustment procedure). By firm employment data cover 5,891 workers in 1977; of these, 2,896 worked for multinationals and 2,995 worked for local private firms. The adjusted multinational share of sectoral employment in 1973 was 49%, indicating a slight downward shift in the multinational share since that year.

The average number of workers employed by multinational firms was larger than for local firms in 1977; 241 vs. 176 workers respectively. The capital-labour ratio for multinational firms was about TT$30,000 per worker. Lack of sufficient data make a meaningful calculation of capital-labour ratios for local firms difficult, but given a capital-labour ratio for the sector as a whole of TT$22,000 per worker, it can be concluded that foreign owned firms are somewhat more capital intensive than are locally owned firms (Tables 3-6 and 3-7).

Value-added by the assembly sector equalled TT$136,898,000 in 1976, slightly over 2% of GDP. Total labour payments equalled TT$60,303,000. Value-added per worker in this sector amounted to TT$18,800, while the average annual labour payment amounted to TT$8,200 (Table 3.8). The data do not allow for differentiation by wage or productivity between national and foreign owned firms.

3. Employment in the Printing, Publishing and Paper Conversion Sector

Total employment in the printing, publishing and paper conversion sector equalled 3,133 workers in 1976. The adjusted multinational share of sectoral employment amounted to 26% in 1977. The employment share for local private firms equalled 51%, while the share of government owned firms was 23%. By firm employment data cover 1,677 workers for 1977; of these, 360 worked for multinational firms, 941 worked for local private firms, and 376 worked for government firms. The adjusted multinational share of sectoral employment in 1973 was 27%, while for local private firms it equalled 50%, and for government firms 23%. Thus, employment shares in this sector have remained stable over the last couple of years.

In 1977 the average number of workers employed by multinationals equalled 180, compared to 94 for local private firms, and 376 for government firms (only one firm in this category). Lack of sufficient data make the calculation of capital-labour ratios by ownership impossible, but for the sector as a whole it equalled TT$15,000 per worker in 1976 (Tables 3-6 and 3-7).

Value-added by the printing, publishing and paper conversion sector equalled TT$29,369,000 in 1976, about .5% of GDP. Total labour payments equalled TT$17,862,000. Value-added per worker in this sector amounted to TT$9,400, while average annual labour payments equalled TT$5,700 (Table 3-8). The data do not allow for differentiation by wage or productivity between national and foreign owned firms.

4. Employment in the Chemical and Non-Metallic Sector

Total employment in the chemical and non-metallic sector equalled 3,422 workers in 1976. The adjusted multinational share of sectoral employment was 34% in 1977, the remaining 66% being employed by local private firms. By firm employment data cover 2,438 workers in 1977; of these, 876 worked for multinationals and 1,542 worked for local private firms. The adjusted multinational share of sectoral employment was 39% in 1973, indicating a downward trend in the multinational share since that year.

Table 3-6

Average Employment Per Firm by Sector and Ownership, 1977

Sector	Average Employment per Firm		
	Foreign	Local	Government
Sugar		65	n.a.
Petroleum	529	80	933
excluding service firms	1,544		933
Food, Drink, and Tobacco	221	133	103
Textiles, Garments and Footwear	158	127	
Printing, Publishing, and Paper Conversion	180	94	376
Wood and Related Products	29	104	275
Chemical and Non-Metallic	90	96	
Assembly Type and Related	241	176	
Electricity and Water			2,700
Construction	1,142	114	
Distribution	142	135	
Transport, Storage and Communication	107	89	988

Source: Central Statistical Office, Trinidad and Tobago

Table 3-7

Capital-Labour Ratios by Sector and Ownership,* 1976

Sector	Capital-Labour Ratio, TT$/Worker			
	Average	Foreign	Local	Government
Sugar	n.a.	n.a.	n.a.	n.a.
Petroleum	146,000	160,000	13,000	230,000
Food, Drink, and Tobacco	32,000	56,000	n.a.	n.a.
Textiles, Garments, and Footwear	7,300	n.a .	n.a.	
Printing, Publishing, and Paper Conversion	15,000	n.a.	n.a.	n.a.
Wood and Related Products	11,000	n.a.	n.a.	n.a.
Chemical and Non-Metallic	32,000	51,000	n.a.	
Assembly Type and Related	22,000	31,000	n.a.	
Electricity and Water	86,000			86,000
Construction	6,300	n.a.	n.a.	
Distribution	14,000	n.a.	n.a.	
Transport, Storage, and Communication	27,000	n.a	n.a	n.a.

Source: Central Statistical Office, Trinidad and Tobago

* See Appendix 1 for a description of how these statistics are calculated.

Table 3-8

Value-Added and Labour Payments by Sector, 1976

Sector	Value-Added (TT$000)	Total Labour Payments (TT$000)	Value-Added Per Worker (TT$)	Average Labour Payment Per Worker (TT$)
Sugar	123,600	85,550	10,600	7,300
Petroleum	2,981,020	258,363	184,000	16,000
Food, Drink and Tobacco	133,638	56,170	17,200	7,200
Textiles, Garments, and Footwear	37,775	24,464	5,600	3,600
Printing, Publishing, Paper Conv.	29,369	17,862	9,400	5,700
Wood and Related Prod.	39,400	11,909	12,400	3,800
Chemicals and Non-Metallic	53,445	29,915	15,600	8,700
Assembly Type and Related	136,198	60,302	18,800	8,200
Electricity and Water	64,700	n.a.	12,000	n.a.
Construction	396,549	72,211	8,800	1,600
Distribution	667,109	332,877	11,300	5,600
Transport, Storage, and Communication	376,000	n.a.	14,000	n.a.

Source: Central Statistical Office, Trinidad and Tobago

There is little difference in this sector between multinationals and locally owned firms regarding the average number of workers employed: there were 90 workers in the case of the foreign owned firms and 96 workers in the case of the locally owned firms. The capital-labour ratio for multinational firms was approximately TT$50,000 in 1977. Lack of sufficient data make a calculation for local firms not meaningful, but since the sectoral average capital-labour ratio equalled TT$31,000, the foreign owned firms appear to be more capital intensive (Tables 3-6 and 3-7).

Value-added by the chemical sector equalled TT$53,445,000 in 1976, about 1% of GDP. Total labour payments equalled TT$29,95,000. Value-added per worker in this sector averaged TT$15,600, while the average annual labour payment equalled TT$8,700 (Table 3-8). The data do not allow for differentiation by wage or productivity between national and foreign owned firms.

5. Employment in the Food, Drink, and Tobacco Sector

Total employment in the food, drink, and tobacco sector equalled 7,762 workers in 1976. The adjusted multinational share of sectoral employment was 28% in 1977, while 65% of the sectoral labour force worked for local private firms and the remaining 7% for government firms. By firm employment data cover 6,450 workers in 1977; of these, 1,899 worked for multinational, 4,242 worked for private local firms and 309 worked for government firms.

In 1977 the average number of workers employed by multinational firms was equal to 237, while for local private firms it was 133 workers and for government firms 103 workers. Capital-labour ratios appear to be higher for foreign owned firms than for locally owned private firms: TT$50,000 per worker for multinationals as against TT$30,000 for local firms (Tables 3-6 and 3-7).

Value-added by the food, drink, and tobacco sectorequalled TT$133,638,000 in 1976, about 2% of GDP. Total labour payments equalled TT$56,170,000. Value-added per worker averaged TT$17,000, while average annual labour payments equalled TT$7,200 (Table 3-8). The data do not allow for differentiation by wage or productivity between national and foreign owned firms.

6. Employment in the Textile, Garment and Footwear Sector

Total employment in the textile, garment, and footwear sector equalled 6,800 workers in 1976. The adjusted multinational share of sectoral employment was 26% in 1977, the remaining 74% being employed by local private firms. By firm employment data cover 3,642 workers in 1977; of these, 1,103 are employed by multinationals and 2,539 are employed by local private firms. In 1973 the adjusted multinational enterprise share of sectoral employment equalled 29%.

In 1977 the average number of workers employed was 158 workers per firm for multinationals and 127 workers per firm for local firms. Data were insufficient to calculate capital-labour ratios. Value-added by this sector in 1976 equalled TT$37,775,000 or .6% of GDP. Total labour payments equalled TT$24,464,000. Value-added per worker averaged TT$5,600, while average annual labour payments equalled TT$3,600 in 1976. The data do not allow for differentiation by wage or productivity between national and foreign owned firms (Tables 3-6, 3-7, and 3-8).

7. Employment in the Wood and Related Products Sector

Total employment in the wood and related products sector equalled 3,133 workers in 1976. The adjusted multinational share of sectoral employment was only 5% in 1977. By firm employment data cover 1,062 workers in 1977; of these, only 58 worked for foreign owned firms, 729 worked for local private firms, and 275 worked for government firms. The share of multinationals was basically unchanged from 1973.

Value-added in this sector equalled TT$39,400,000 in 1976, .6% of GDP. Total labour payments equalled TT$11,909,000. Value-added per worker averaged TT$12,409, while average annual labour payments equalled TT$3,800 in 1976.

8. Employment in the Distribution Sector

Total employment in the distribution sector was 59,222 workers in 1976, 4 times as many as in the petroleum sector. The adjusted multinational share of sectoral employment equalled about 9% in 1976, the remaining 91% of the sectoral labour force was employed by local private firms. By firm employment data cover only 9,443 workers in 1977, presumably because the bulk of employment in this sector is in very small enterprises. The data are insufficient to calculate any trend in employment shares.

Value-added in the distribution sector equalled TT$667,000,000 in 1976, over 10% of GDP. Total labour payments equalled TT$332,877,000. Value-added per worker equalled TT$11,300 in 1976, while average annual labour payments equalled $5,600 per worker (Tables 3-6, 3-7, 3-8).

9. Employment in the Construction Sector

Total employment in the construction sector equalled 45,117 workers in 1976. The adjusted multinational share of employment amounted to 9% in 1977. By firm employment data cover only 5,449 workers; of these, 3,425 worked for multinational firms, while 2029 worked for local private firms. Total employment in this sector has risen sharply, as Trinidad has experienced a construction boom, but the data are insufficient to indicate any shift in sectoral employment shares by ownership.

Value-added in the construction sector was TT$396,559,000 in 1976, over 6% of GDP, while total labour payments equalled TT$72,211,000. Value-added per worker equalled TT$8,800, while the average annual labour payment was only TT$1,600, reflecting the seasonal nature of the construction industry.

10. Employment in the Transportation, Communication and Storage Sector

Total employment in the transportation, communication, and storage sector equalled 26,800 workers in 1976. The adjusted multinational share of employment in this sector was only about 3% in 1977, while the share of local private firms equalled 11% and of government firms 86%. By firm employment data cover 9,535 workers in 1977; of these, 320 worked for foreign owned firms, 1580 worked for local private firms, and 7,635 worked for government firms. The data are insufficient to calculate any trend in employment shares.

All of the large firms in this sector are government enterprises, their very large size being a function of their role as public utilities. The participation of multinationals in this sector appears to be minimal.

11. Employment in Other Sectors

There is no multinational presence in the sugar and the electricity and water sectors. While multinational firms do operate in the hotel and finance sectors, no data on employment by ownership are available for these sectors.

D. Indirect Employment Effects of Foreign Investment in Trinidad and Tobago

The indirect employment effects of foreign investment in Trinidad are difficult to ascertain in the absence of detailed input-output data. Petroleum, the prime site of multinational investment, is in all countries a classical sector with limited linkages to the remainder of the economy. The purchasing power created within the petroleum sector, however, increases economic activity throughout other sectors. In addition, the oil boom in Trinidad has spurred a construction boom, leading to increased employment in the construction industry. Finally, the petroleum sector provides 80% of government revenues which, depending on government policy, can be used to generate employment in other sectors of the economy even in the absence of important direct input-output linkages between petroleum and other sectors.

Information on the linkages which exist within the manufacturing sector and between it and other sectors in Trinidad is also limited. Multinational activity appears to be concentrated in assembly-type operations and, increasingly, export promotion types of activities. In the case of assembly-type operations,

linkages with other sectors of the Trinidadian economy are likely to be less significant than linkages with the foreign source of the unassembled materials. In the case of export promotion activities, multinationals tend to locate within Trinidad a single part of a production process which is integrated on a global basis. The operation which is located within the local economy is usually low skilled and low waged. Such activities have probably limited linkages only with the remainder of the Trinidadian economy.

In summary, although the absence of adequate information makes it difficult to fully ascertain the indirect employment effects of foreign investment in Trinidad, such effects appear to be greatest through their capacity to generate purchasing power and more limited as regards their overall articulation with the remainder of the economy. The indirect linkages are certainly more important in the petroleum sector, as it generates as much as one-half of GDP and 80% of government revenue.

E. Summary and Conclusions

The share of employment directly generated by multinational corporations in the economy of Trinidad and Tobago appears to have held more or less constant at 44% throughout the 1970s if account is taken of state interventions in ownership. Over 40 per cent of those who work in the combined petroleum and manufacturing sectors are directly employed by multinational firms. Multinational operations are heavily concentrated in the all important petroleum sector, in which 70% to 80% of the labour force is directly employed by multinationals (depending on the statistical treatment of contract labour). Multinational enterprises are also a considerable presence in the combined manufacturing sectors, where approximately one-third of the direct employment is generated through them. Indirect employment effects are important via the purchasing power and government revenue impact of the enterprises. Thus the considerable importance of multinational enterprises for labour markets and employment needs no further demonstration.

CHAPTER FOUR

Multinationals Qualitative Employment Aspects in Trinidad and Tobago

This chapter reviews some qualitative employment aspects relevant for multinational enterprises. Among these are labour legislation, unionisation, training, the employment of women, and wages (which are included in Table 3-8).

A. Industrial Relations

1. Labour legislation

The 1972 Industrial Relations Act (IRA) governs labour relations in Trinidad and Tobago. Certain union organisations have demanded the removal of this act on the grounds that it infringed on the basic right of workers to withdraw their labour. On the other hand, many employers are in favour of the IRA, especially in that it empowers the government to determine which union is the recognized bargaining unit for any particular workforce, a function which, according to the Employers' Consultative Association, "is...the major force behind the decrease in strikes over the last five (5) years [1972-77]..."1/

In addition to the IRA, there are 21 pieces of legislation covering the employer-employee relationship. Additional laws are in the drafting stage to cover issues related to health and safety, retrenchment and redundancy and contract work. The labour legislation sets the industrial relations framework both for multinational and domestic enterprises.

2. Unions

After the unrest which occured in most British colonies in 1937, an effort was made by the metropolitan administration to introduce trade unions on the British model. In 1976 there were some 25 active unions in Trinidad, representing 30% of the labour force. By 1978 over 40% of the labour force was unionized, including white collar workers in banks and administrative jobs. Two union movements encompass most organisations: the Labour Congress which is affiliated to the International Confederation of Free Trade Unions,(Brussels);and the Council of Progressive Trade Unions (CPTU), which has no international affiliation. The CPTU includes the Oilfields Workers' Trade Union (OWTU), Transport and Industrial Workers' Trade Union (TIWU), as well as a sugar cane farmers' union and a sugar workers' union.

3. Training and personnel development

The Government of Trinidad and Tobago does not have an explicit policy on the training obligations of commercial firms, whether they are locally or foreign-owned. However, a Manpower Training Board has been created, and is currently engaged in surveying existing in-house training efforts on the part of all companies. Most multinational corporations carry out in-house training as a matter of course. Some have workshops, apprentice schemes, and channels through which employees are sent to the country in which the head office is located for additional training. Increasingly, Trinidadians in subsidiaries are being seconded to subsidiaries in other low-income countries to gain experience. Both local and foreign firms draw upon the graduates of the technical school, the John Donaldson Training Institute. Overall, foreign firms appear to devote more systematic effort to training Trinidadian staff; but the extent to which this encourages also mobility outside the foreign corporate framework is an open question.

The International Labour Organisation has contributed to establishing schemes for the training of management personnel. With the acceleration of industrial development in Trinidad, the need arose for improved managerial effectiveness at all levels of the economy - public, private and labour sectors. In anticipation of this the government, with the assistance of the United Nations special fund and the International Labour Organisation, set up the Productivity Centre, now called the Trinidad and Tobago Management Development Centre.

1/ Businessmen's Guide to Trinidad and Tobago, Trinidad Businessmen's Association, Port of Spain, 1977, p. 58

The major objectives of the centre are (a) to provide training for all aspects of management in every type of enterprise, public as well as private, (b) to develop advisory and consultancy services for industrial and other enterprises and (c) to undertake research on the practical application of modern management techniques in local conditions. Since its establishment in 1965, the centre has trained approximately 10,000 persons in scheduled and in-plant courses.

The broad question of technology transfer has hardly been addressed as yet, in Trinidad. Government capacity to monitor the transfer by foreign firms of technical knowhow and management skills to nationals is very limited. However, thse issues are being addressed now in part because of the major new departure into patent-intensive, energy-based industrialization.

4. Occupational safety and health

From the industrial accidents statistics of 1978 (by type of industry and cause of injury) it emerges that most accidents occurred in the petroleum industry, with assembly manufacturing second, and the sugar industry third. The chemical and non-metallic minerals industries were fourth, and food processing fifth.

The major cause of accidents is not known, since the category under which the largest number of incidents are listed is 'other types of accidents'. But equipment-related accidents are second most numerous, with those related to the working environment coming third.

New legislation to govern safety is being drafted. Its effectiveness will depend to a considerable extent on the ability of the government to monitor conditions.

5. Women in the labour force

About half of Trinidadian women 15 and older were in the labour force in 1977. The half not classified as being in the labour force, some 130,000 women, can be considered fulltime, unwaged, household workers.

The occupations into which the female labour force were incorporated in 1977, in order of importance by proportion, were services (21%), clerical (19%), secretarial-commercial-financial (14%), and professional-technical and agricultural (11% each).

The occupation which grew the fastest over the 12 years from 1965 to 1977 was clerical work (the administrative, executive, managerial and clerical worker category). The share of the female labour force engaged in this job doubled in the period. Second came technical and construction jobs, with a 4% growth in proporation of the female labour force. The two occupations which contracted most notably were agriculture which encompassed only 10% of the female labour force in 1977, compared with 21% in 1966; and services where the share of working women dropped from 27% to 21%. Thus, while service jobs continued to employ the largest number of women, this sector is declining in importance. Clerical work is expanding while agriculture is contracting. It is significant that the combined categories of technical-production worker increased from employing 19% of women in 1965 to 22% in 1977.

Women constitute only about one-third of the total gainfully employed labour force (men and women 15 and older). This under-representation is due to the demands of housework and the exclusion of women from certain jobs. It is not due to educational differences since Trinidadian women are almost on par with men at all levels of education, up to and including university (although men dominate in the technical fields).

In practically all occupations women's income is a fraction of men's although this does not hold in public service and jobs dominated almost by men (e.g., construction, 95% or transport, 76%). Overall, women's mendian monthly income in 1979 was 73.5% of men's, an improvement over 1971 when it was 55%, and from 1965 when it was only 50%.

The income difference was smallest in the professional occupations where female doctors, teachers, etc., commanded 84% of the salaries of their male counterparts. However, the professions are overwhelmingly staffed by men, so few women enjoy the relative income equality which exists in these occupations. For quite different reasons, the wage differential in clerical work was also least (women made 84% of men's salaries). This reflects the fact that women predominate in clerical jobs, but more importantly, that most of these jobs are in the public sector which pays according to grade and scale (rather than according to labour market supply conditions). The female salary median in this sector was 94% (1979) of men's.

Most interesting in terms of wage differentials is the agricultural sector where women earn about 80% of men's wages. This, the second best ratio, results from the pre-proletarian organisation of production of sugar.

The pattern which emerges in these comparisons suggests that in practically all sectors, including those of the concentration of multinational enterprises, women constitute a relatively cheap labour force.

CHAPTER FIVE

Employment Effects of Multinational Enterprises: Some Observations on the Case of Jamaica

A. Introduction

Jamaica's economy is very much dependent on bauxite production. The country is the world's third largest producer of bauxite, the ore used to produce aluminum, with the US in particular receiving one-half of its bauxite imports from Jamaica (Tables 5-2, 5-3). The bauxite industry itself is dominated by four North American multinational corporations. Still the largest parts of the Jamaican labour force are found in three sectors, especially agriculture, public administration, commerce and manufacturing. Jamaica has experienced a persistently high rate of unemployment (20-25 per cent on average) in the 1970s which is of considerable concern in the country (Table 5-1).

B. Background

Jamaica's experience with foreign enterprise is not of recent origin. Like other Caribbean islands, Jamaica was first used as a production site for plantation agriculture, particularly sugar. Jamaica is the largest of what had been giant British run sugar plantations.

This plantation heritage, dating from colonial days, has ramifications in the present period. Fully 60% of the population is still rural, yet 75% of the land is owned by only 10% of the land holders.

C. The Bauxite Industry

Large scale bauxite and alumina production began over 30 years ago. It was during the second world war that North American enterprises set up mining operations in Jamaica. During the period that these multinationals have been operating in Jamaica, they can be considered its single most important industry in terms of revenues generated. As the statistics on labour force composition show, the multinationals in these industries account only for a small fraction of employment. This has indirectly to do with the nature of bauxite production. Bauxite is a typical export oriented "enclave" industry. Direct employment in bauxite amounted to only .6% of the labour force in 1976 (Table 5-4). Backward and forward linkages to the rest of the economy are not extensive, so that indirect inter-industry employment effects are also small. Yet the bauxite industry provides 8% of GDP, 20% of government revenue, and one-half of export earnings (compared to 13% of export earnings for agriculture, which employs 50 times as many people). The bauxite industry is therefore of considerable importance for the Jamaican economy as a whole.

Recognizing the possibility to use the resources generated by the industry for general development effort, the government attempted to collect on the major indirect effect of the bauxite industry, namely its potential to generate government revenue. The Jamaican government played a leading role in the formation of the International Bauxite Association (IBA) in 1975. It also sharply raised the taxes it imposed on the mining operations. In 1976-77 the Jamaican government entered negotiations with the multinational aluminum firms in order to partially buy them out. The government would receive a 51% equity share in the mining operations, but management of the joint-venture would rest with the multinational partner.

D. Other Sectors

Employment in other sectors of the Jamaican economy has relatively stagnated during the 1973-77 period. Agriculture and Public Administration are the only sectors which show any significant increase in the absolute number of workers employed.

The sector which is most likely to attract foreign investment after mining is manufacturing. However, the general situation in this sector is difficult and employment has shown a downward trend from 1973-77.

Table 5-1

Jamaica: Labour Force Statistics 1973-1977

	1973		1974		1975		1976		Est. 1977	
	Apr.	Oct.	Apr.	Oct.	Apr.	Oct.	Apr.	Oct.	Apr.	Oct.
					(In thousands)					
Population	1,963	1,982	1,993	2,012	2,032	2,047	2,063	2,083	2,089	2,101
By economic status										
Economically inactive	1,152	1,179	1,173	1,192	1,182	1,181	1,191	1,188	1,187	1,159
Labor force	811	803	820	820	850	866	872	895	902	942
By sex										
Male	499	506	503	518	515	523	523	529	526	516
Female	653	673	670	674	667	658	668	659	661	643
Labor force	811	803	820	820	850	866	872	895	902	942
By economic status										
Employed	637	622	642	651	680	685	693	679	680	716
Unemployed	174	181	178	169	170	181	179	216	222	226
By sex										
Male	442	445	454	435	475	470	481	489	493	508
Female	369	358	366	365	375	396	391	406	409	434
					(Unemployment as per cent of labor force in respective group)					
Total	21.4	22.5	21.7	20.6	20.0	20.9	20.5	24.2	24.6	24.0
By sex										
Male	12.4	13.4	12.0	12.7	11.1	11.9	12.1	14.7	16.1	15.1
Female	32.4	33.8	33.7	30.6	31.2	31.7	30.9	35.6	34.8	34.4
By age group										
14-24	37.2	40.1	39.5	37.2	36.2	37.8	38.2	45.2	N.A	N.A
25-34	22.4	21.6	21.7	19.0	18.2	19.3	19.9	22.7	N.A	N.A
35 and over	12.6	13.0	12.0	12.5	11.5	12.4	11.1	13.0	N.A	N.A
By occupation										
Professional and self-employed	4.3	5.6	4.8	3.5	4.8	5.0	5.3	7.0	N.A	N.A
Clerical and sales occupations	15.0	17.5	17.7	15.2	13.7	17.9	16.5	20.5	N.A	N.A
Service occupations	35.3	32.1	34.0	31.8	30.8	33.6	34.0	38.8	N.A	N.A
Craftsman and operating occupations	18.3	19.0	19.5	19.1	17.3	19.4	21.6	23.1	N.A	N.A
Unskilled	19.4	22.8	18.6	20.7	20.6	17.7	17.3	23.4	N.A	N.A
Occupation not specified	19.4	61.5	36.4	42.1	18.9	23.8	27.3	7.4	N.A	N.A

Source: Department of Statistics.

For the definition of "labour force" and related concepts see Appendix 2.

Table 5-2

LEADING BAUXITE-PRODUCING COUNTRIES
(Production in thousands of tons)

	1953	1963	1973	1976
Jamaica	1,220	6,903	13,601	10,311
Guyana	2,275	2,342	3,464	2,982
Surinam	3,223	3,384	6,533	4,770
Australia	—	354	17,596	21,230
Guinea	—	1,638	2,806	11,500
Total IBA Countries	na.	na.	50,301	56,200
USA	1,580	1,525	1,909	1,961
USSR	890	4,300	5,800	6,000
World Total	13,000	30,255	71,848	74,800

Sources: *IBA Quarterly Review*, March 1977; Owen Jefferson, *The Post-War Economic Development of Jamaica.*

Table 5-3

U.S. BAUXITE IMPORTS
(in thousands of tons)

	1970		1973		1976	
Country	tonnage	%	tonnage	%	tonnage	%
Australia	239	1.8	529	4.4	—	—
Dom. Republic	925	6.8	931	7.7	599	4.7
Guinea	529	3.9	130	1.1	3,064	23.9
Guyana	322	2.4	962	8.0	645	5.0
Haiti	627	4.6	312	2.6	616	4.8
Jamaica	7,623	56.2	6,447	53.5	6,284	49.0
Sierra Leone	—	—	—	—	54	0.4
Surinam	2,970	21.9	2,694	22.3	1,569	12.2
Total IBA	13,235	97.5	12,005	99.6	12,831	100.0

Source: U.S. Bureau of Mines, Mineral Industry Surveys, Bauxite.

Table 5-4

BAUXITE IN THE JAMAICAN ECONOMY 1976

	Absolute	%
Employment		
Employed labor force	883,600	100
Employed in the bauxite industry	6,000	0.6
Unemployed labor force	216,400	24
Gross Domestic Product (US $ millions)		
All industries	3,045	100
Bauxite industry	256	8
Foreign Exchange Earnings (US $ millions)		
Total	927	100
Bauxite and alumina	428	46
Government Revenues (US $ millions)		
Total General Revenues	667	100
Contribution of bauxite industry through taxes	133	20

Sources: *Economic and Social Survey Jamaica 1976*, National Planning Agency, Gov't of Jamaica; *National Income and Product 1976*, Dept. of Statistics, Gov't of Jamaica.

E. Government Policies

With respect to the alleviation of unemployment there has been some progress with state-sponsored small farming; the numbers employed in agriculture have grown as a result. The Jamaican government policies of 'industrialization by invitation' have not produced major results for the employment situation. Since the mid-1970s a new strategy of a gradual more self-reliant growth has been adopted. Oil finds prospected for offshore would relieve the drain on foreign exchange for oil imports, provide revenue and serve as feedstock for a variety of employment-generating industries.

CHAPTER SIX

Conclusions

A. Direct employment effects of multinational corporations

The study surveyed multinational corporations and employment generation in the Caribbean region. Because quantitative data was available for Trinidad and Tobago, particular reference was made to this country. Special emphasis was also placed on employment and foreign investment in Jamaica. In the case of Trinidad and Tobago, relatively complete data from the Central Statistical Office on employment by firm, was available from 1973 to 1977. On the basis of this period, it is possible to conclude that the share of employment directly generated by multinational corporations was 44% of total employment for twelve sectors (banking and tourism excluded). On the basis of less complete information on employment in the 1960s, it is possible to infer that the share of the labour force employed by multinationals has increased by approximately 5% over the decade. Thus, the trend has been towards the generation of more jobs by firms in which over 50% of equity is foreign-owned.

This trend would be more pronounced had it not been for extensive government participation in foreign corporations operations. For example, the state ownership interest in the petroleum industry transferred a significant number of workers to the public sector, thus reducing the share of multinational corporations. The government's policy to own majority equity in a number of major enterprises has thus moderated the trend towards the generation of an increasing proportion of employment by multinational corporations.

The pattern of employment by multinationals in the other Caribbean region countries appears to have followed a similar evolution. On the basis of qualitative review, it is probable that the proportion of the labour force employed by multinationals has increased over the last decade. This reflects the increased foreign investment in labour intensive manufacturing activities such as electronics assembly and garments. Furthermore, food processing and financial operations have been established throughout the Caribbean by multinationals, and have generated additional employment. The governments of mineral producing Caribbean region countries have taken equity interest in extractive industries and thus have moderated the trend towards an increase in the share of employment generated by multinationals.

Overall, it appears that in the medium term, multinational corporations have been a force for the generation of increasing proportions of employment in the Caribbean. In the short term, however, on the evidence for the mid-1970s especially, it appears that employment generation by multinationals has been stable. This reflects mainly a tendency towards a cutback in foreign investment in manufacturing activities in some countries, and the policies of governments to indigenize sectors of the economy rather than a lower employment performance of multinational enterprises as such.

Another pattern that is evident for Trinidad and Tobago, is a diversification of multinational investment, which resulted in changes in the structure of employment generated by these firms. Whereas investment was once concentrated in the agricultural sector, in export crop plantations, today it is concentrated in extractive industries and manufacturing. Employment generation in extractive industries is not great due to the capital intensive character of this sector. However, if employees of local contracting firms to the oil and bauxite industries are included, the share of employment generated by foreign firms in the extractive sector increases by approximately 10%. As regards quality of employment, it should be noted, however, that contract workers (either directly employed by mining firms or employed through local labour agencies) do not usually enjoy the job security and benefits of permanent employees. The diversification of multinationals into agro-industries (food, drink and tobacco), textiles, garments and footwear, paper conversion, chemical and non-metalic activities, and assembly manufacture (cars, electronic components, household appliances and furniture) has further widened

the impact of multinational employment generation. Although multinational investment remains concentrated in the extractive sector (mainly oil and bauxite production and processing), it is now increasingly present in manufacture and agro-industry.

The trends in the future are likely to reflect the pattern over the last decade. This pattern includes growing shares of employment generated by multinationals, though probably at a decelerating rate; growing state and local private sector participation with multinationals in production and hence employment; a diversification of activity away from agriculture and extraction into manufacturing and an increased emphasis on export-oriented production.

B. Indirect employment effects of multinational corporations

The effects of multinational corporations on indirect employment generation are less easy to quantify. In Trinidad and Tobago, the main avenue through which multinational corporations clearly generate indirect employment is via the payment of wages, especially the high wages in the extractive sector, which are spent on consumer items. Another most significant avenue for indirect employment generation by the petroleum industry is through payment of revenues to the state. The state in turn has expanded administrative staff size, increased public expenditure (recurrent and capital), launched a major construction programme and actually created public works jobs for thousands of unemployed people. There should be also a revenue impact of bauxite producing multinationals in Surinam, Jamaica, Guyana, Haiti and the Dominican Republic as there is a revenue effect of oil production in Trinidad and Venezuela and petroleum processing in Curaçao and Aruba.

The limited indirect employment generation in the mining sector, via upstream and downstream production linkages, is attributable mainly to the character of extractive operations, whether they are carried out by multinational or domestic enterprises. Capital intensive and export-oriented industries such as petroleum production are not geared to generating indirect local employment spin-offs to a considerable degree. However, Caribbean region governments are encouraging the development of processing plants near the point of mineral production. They are also encouraging the establishment of indigenous service firms, capable of providing a range of inputs to the mining sector. Both initiatives should result in growing indirect employment generation effects of multinational investment in extraction.

The moderate indirect employment generation effects through inter-industry linkages of multinational investment in manufacturing, which we have found is a reflection of the import-substituting and export-oriented character of much foreign investment. In agro-industries the indirect effects appear to be more significant, given the sugar industry's integration into the confectionary, beverages and food processing operations. There appears to be a trend towards more indirect job creation through food processing, and dairy production. As government policies encourage state involvement in the economy, indirect employment effects are likely to increase but these will probably be due mainly to special state and foreign initiatives in this connection. This reflects the objectives of Caribbean region governments to integrate domestic economies and achieve a degree of self-reliance, especially in food. It also reflects a policy of promoting Caribbean economic integration. Revenues are required to achieve these goals, and hence the governments encourage export-oriented investment activities, even if these do not directly generate significant employment either directly or indirectly. The example of Trinidad's oil and gas-based industrialization scheme is a case in point. Capital intensive natural gas operations are under construction to export gas products largely to the U.S. market. Revenues will be the main gain, but these in turn will be directed, according to state plans, into manufacturing and agricultural production, allowing them, it is hoped, significant employment generation. As of 1979 government policy appears to be more directed to downstream operations, e.g. methanol plants, fertilizers, steel production etc.

Some of the reasons for the attraction of multinational enterprises to the Caribbean region have to do with the physical features of the area: tropical climate for agriculture and tourism, natural resources (especially oil and bauxite) and proximity to the North American market. But firms which require a relatively large labour force for labour-intensive production are likely

to be attracted by the presence of a pool of workers distinguished in a number of respects. Caribbean peoples are accustomed to regular employment in industrial and office environments. Apart from being socialized to work in industry, the Caribbean working class is relatively skilled. Labour costs are not low compared to those in Latin America or Asia and Africa. But the cost of Caribbean labour is much less than the costs of labour in North America. Overall, for certain firms the advantages of Caribbean labour may outweigh its relatively high cost. This is especially so when the geographical location of the area is taken into consideration.

The perspective of multinational and local business includes the view that capital and labour are engaged in a partnership, the failure of which will be to the detriment of workers and employers alike. Conversely, it is held that the operation of a good partnership, for example through higher productivity, will benefit both employees and management. The multinationals in Trinidad have sought to reduce the necessity of retrenchment in response to overtures from the government and in the face of high unemployment. However, this cooperation cannot be at the expense of corporate viability. Therefore, additional incentives are sought from the government and the workers (mainly through productivity), to encourage the maintenance, and where possible, the growth of employment.

The governments of the region are faced with difficult choices. On the one hand, there are pressures to devote resources to social welfare programmes, price subsidies and the like. Additional pressures are exerted to guarantee the right to strike and protect other working class advances. A mobilized and highly organized work force exerts pressure on Caribbean governments to concede to wage and work terms which may constitute disincentives to multinational investors. Moreover, some union demands have gone beyond workplace objectives to call for state ownership of multinational enterprises, (including worker-state profit sharing arrangements), in the belief, among others, that the government is well placed to focus on employment generating strategies within the enterprises.

Different Caribbean region governments have developed different strategies for employment generation in relation to these contradictory pressures. For instance, Jamaica is de-emphasizing multinational enterprise involvement in agriculture while encouraging smallholder production. Multinationals have been associated with the vital production of sugar in the country. However, recent government policy aims at a reduction of their role (which was stressed, for instance, in the 1981 Budget speech). In the context of foreign direct investment Caribbean governments tend to share on the whole the need for a capital and labour partnership with multinational enterprises. The governments also seek to mediate disputes and facilitate stable relations between the enterprises and the workers. Labour legislation is developed and a range of fiscal policies have been introduced to reduce the impact of labour cost for the enterprises. Educational reforms are being implemented to orient the workforce towards the types of jobs likely to be available in the next decade, including those in multinational enterprises.

A. Calculation of Adjusted Employment Shares

Employment data supplied by the Central Statistical Office of Trinidad and Tobago include sectoral employment totals through 1976 and by firm employment for "large establishments" in 1973, 1975, and 1977. The by firm data is the only direct source for calculating employment shares by ownership category, but it is incomplete. The by firm data cover 100% of the labour force employed in electricity and water; 94% of the labour force employed in petroleum; 81% of the labour force employed in assembly; 79% of the labour force employed in food, drink, and tobacco; 71% of the labour force employed in chemicals and non-metallic; 54% of the labour force employed in printing, publishing, and paper conversion; 46% of the labour force in transport, storage, and communication; 33% of the labour force in wood and related products; 16% of the labour force in distribution; 14% of the labour force in construction; and 1% of the labour force in sugar. It is thus necessary to adjust the by firm data in order to arrive at a more meaningful calculation of employment shares by ownership.

No adjustment is made for petroleum and electricity and water for which coverage is adequate. For each of the remaining sectors a residual (R) is calculated which is the difference between 1976 sectoral totals and 1977 by firm totals within each sector. The residual within each sector is then allocated between foreign owned, local private, and government owned firms according to the following rule:

$A = (2/3)(F)(R)$

$B = (R - A)(L/(L + G))$

$C = (R - A)(G/(L + G))$

where:

A = share of residual employment within sector allocated to foreign owned firms

B = share of residual employment within sector allocated to local private firms

C = share of residual employment within sector allocated to government owned firms

F = foreign share of assets within a given sector

L = local private share of assets within a given sector

G = government share of assets within a given sector

R = residual sectoral employment not covered by individual firm data within that sector

That is, residual employment within each sector is allocated on the basis of asset ownership, but an adjusted asset ownership. It is assumed that foreign firms are 50% more capital intensive than locally owned firms, reducing the share of the employment residual allocated to them to two-thirds of their share of sectoral assets. Local private and government firms have the remaining residual allocated to them on the basis of their percentage ownership of non-foreign owned assets within each sector.

To calculate adjusted employment within each sector by ownership, the residual allocated to each ownership category within a sector is added to actual individual firm employment by ownership within each sector. Aggregated sectoral totals are derived by adding the adjusted employment totals over the sectors being aggregated. To calculate trends the same procedure is repeated for 1973.

B. Calculation of Capital-Labour Ratios by Sector and Ownership:

Capital-labour ratios by sector are calculated by dividing total assets within each sector by total sectoral employment. To calculate capital-labour ratios within a sector by ownership, assets owned by foreign, local, and government firms within that sector are divided by the respective unadjusted employment totals for foreign, local, and government owned firms. Since coverage is incomplete, this introduces an upward bias into the calculation of capital-labour ratios. Where employment coverage is low, no calculation of capital-labour ratios is made.

Appendix 2

Definitions of "The Labour Force", "Work for Pay", and "Work Without Pay" 1/

The Labour Force: Of the total population 15 years old and over covered in the survey, all persons engaged in, or willing and able to be engaged in the production of economic works and services are classified as being in the Labour Force. These include employees as well as employers and the self-employed. In other words, the Labour Force is comprised of all persons who either had jobs (the employed), or, if they did not have jobs, were willing and able to work (the uenmployed). In this definition, a woman must have earned wages, however small, during the survey period to be classified as part of the labour force.

Work for pay: Work for Pay covered all activities for which an individual received remuneration. In addition to regular work as an employee, therefore, it included work in one's own business or farm if run for profit; odd jobs undertaken for pay; and subsidiary activities, such as dressmaking, poultry rearing; etc., wherever money was earned from such activities. By this definition, some persons not generally considered as working would be included in the Labour Force; for example, a housewife would be recorded as having "worked for pay", if during the particular survey week she did some dressmaking or hairdressing for pay even if she did not usually work for pay.

Work Without Pay: Work without pay was considered an economic activity only if it was done in connection with some farm or business from which someone else received an income. In particular, therefore an individual working in a business belonging to a member of his family would be considered as in the labour force even if he received no remuneration, but would be out of the labour force if he was engaged in domestic work and work around the house without pay [sic]... In the present (1977) survey, ...all unpaid workers are included in the labour force, but the number working sixteen (16) hours or less is shown separately so that comparison with the earlier surveys can be made.

1/ The Government of Trinidad and Tobago Central Statistical Office publishes a continuous sample survey of population in Labour Force (LF 2-14, 1979) from which these definitions are drawn.

Appendix 3

FACTS AND FIGURES ON THE PETROLEUM INDUSTRY OF TRINIDAD AND TOBAGO

Compiled by the Ministry of Petroleum and Mines

31st May 1979.

HISTORICAL FACTS

YEAR	
1857	First well drilled for oil in Trinidad, 280 feet deep in the vicinity of the Pitch Lake by the Merrimac Co.
1865	Walter Darwent founded the Paria Oil Co., to drill for oil in South Trinidad.
1866	First successful oil well drilled by Walter Darwent at Aripero.
1901	Randolph Rust and Mr. Lee Lum drilled and tested a well which produced 100 gallons of oil in 2 hours.
1903	Guayaguayare No. 3, first well to be drilled with rotary equipment.
1904	A Mines Department instituted as a branch of the Public Works Department to deal with the production of manjak.
1908	Commercial oil production begins in Trinidad near the Pitch Lake, La Brea.
1910	First export cargo of crude oil was shipped by tanker at Brighton, La Brea.
1911	Discovery of the Tabaquite Field-the most northerly oilfield found on land, to date.
1912	Small refinery built at Pointe-a-Pierre.
1914	Production reached 106 bbls/yr (barrels per year) and industry employed 1,200 persons.
1919	Refinery capacity increased to 9,000-BOPD (Barrels oil per day) 66% of crude produced was refined locally.
1930	Crude oil products increased to 10 million barrels per year.
1930	First importation of oil from Venezuela, for refining locally.
1930	First geophysical surveys made in the Brighton area.
1932	Electrical well logging introduced in Trinidad.
1933	Trinidad Oilfield Ltd. introduces gas injection in the Forest Reserve Upper Cruse sand.
1937	Widespread labour unrest in the oilfield area.
1940	Refining capacity increased to approx. 28.5 million barrels per year Products increased to 22 million barrels per year.
1954	Marine drilling for oil began in the Soldado field by Trinidad Northern Areas Ltd.
1954	Deepest well drilled on land, Apex, Fyzabad Well No. 560 drilled to 16,155 feet.

1955 Production from Soldado Field initiated.

1955 Discovery of the northermost gas field in Trinidad at Mahaica, by Dominion Oil Limited.

1958 First well started on Platform 1.2 miles offshore from Brighton. The Platform was designed to accomodate 36 wells which is a world record for this type of platform.

1959 Federation Chemicals Ltd. pioneered the use of natural gas in Trinidad and Tobago as a chemical feedstock in the manufacture of ammonia.

1961 Galeota No. 1. first exploratory well drilled offshore the East Coast of Trinidad Well produced oil but considered uneconomic.

1962 Formation of the Ministry of Petroleum and Mines.

1963 Appointment of Commission of Enquiry into the Oil Industry.

1967 A new production high of 65 million barrels per year was achieved.

1968 First commercial oil discovery off the East Coast of Trinidad by well Offshore Pt. Radix No. 2 (OPR-2).

1968 Government and United Nations carry out seismic survey off Trinidad's North Coast.

1969 On July 1, Government in a joint venture with Tesoro Petroleum Company acquired the local assets of British Petroleum, first venture into national ownership and control of the industry.

1969 New Petroleum Legislation enacted - Act No. 46 of 1969.

1969 The National Petroleum Company was established by law.

1970 Ist Marine concessions under new petroleum act, were given out (North Coast Marine Areas).

1971 Drilling began off the North Coast of Trinidad, natural gas discovered.

1972 Trinidad and Tobago National Petroleum Marketing Company created.

1972 Commercial production began offshore the East Coast of Trinidad and from Teak A platform.

1972 Delta Exploration Co. contracted to conduct a seismic survey of 2 million acres of offshore territory in East Coast and Gulf of Paria.

1973 Emergence of the so-called "energy crisis".

1974 On August 31, Government acquired the local operations of Shell Trinidad Limited and formed the Trinidad and Tobago Oil Company Limited.

1974 Petroleum Taxes Act to revise taxation methods in the petroleum industry and the introduction of the Refinery Throughput Tax.

1974 Introduction of Production Sharing Contracts for exploration and exploitation of petroleum resources off the East Coast and in the Gulf of Paria.

1975 Formation of the National Gas Company.

1977 The Government of Trinidad and Tobago takes additional 20% participation in South East Coast Consortium as a commercial discovery is announced.