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COMPARATIVE ANALYSIS
OF
INVESTMENT FACTORS
FOR
PRODUCTION SHARING VENTURES
U.S. AID/COSTA RICA CONTRACT
LAC REGIONAL #515-0619-C-00-3339-0

PREPARED BY
PRODUCTION SHARING INTERNATIONAL
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A.I.D. Mission Project

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A.I.D. MISSION PROJECT
LIST OF ACRONYMS

CACM	Central American Common Market
CARICOM	Caribbean Common Market
CBC	Caribbean Basin Countries
CBI	Caribbean Basin Initiative
DOT	Department of Transportation
EPZ	Export Processing Zone
GOB	Government of Barbados
FZAS	Free Zone Authority Services Inc.
GOJ	Government of Jamaica
GSP	Generalized System of Preferences
LDC	Less Developed Countries
MFN	Most Favored Nation
MNC	Multi National Corporations
NIC	Newly Industrialized Countries
OEM	Original Equipment Manufacturer
PSI	Production Sharing International, Ltd.
TSUS	Tariff Schedules of the United States

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EXECUTIVE SUMMARY

Manufacturers in the United States face growing challenges from lower priced foreign products. Faced with this competition U.S. firms must find innovative ways to reduce their costs. One method frequently adopted is to begin a production sharing operation where components produced in the United States are assembled abroad in countries with lower wage rates.

To date, the Caribbean Basin has attracted comparatively few investments in production sharing operations. However, this study demonstrates that from a cost standpoint the Caribbean Basin is competitive with other production sharing locations such as the Far East or Mexico for certain product categories. The explanation for the slow pace of investment in the Caribbean Basin countries is circular. The Caribbean Basin manufacturers' lack of savvy, experienced entrepreneurs and of a sufficiently developed infrastructure limits investor interest, and this lack of interest means that the investment necessary to gain this experience is slow in coming. The Caribbean Basin Initiative (CBI) opens additional U.S. market access to the nations of the Caribbean and provides an additional incentive for U.S. manufacturers to consider the Caribbean as a base for production sharing operation.

Detailed comparative cost analyses were conducted for three representative products in apparel, automotive components, and electronic components in seven Caribbean Basin countries, Mexico, and three Far Eastern countries. Costs varied by as much as 20 percent between countries, but in each case Caribbean Basin countries accounted for two of the three lowest cost producers.

This study also assesses the investment criteria by which U.S. corporations evaluate overseas investment alternatives. The data for these analyses are based on interviews with corporate executives and plant managers in Costa Rica, Haiti, Honduras, the Dominican Republic, Mexico, and home offices in the United States. As expected, cost considerations influenced the initial decision to locate offshore; however the reasons varied for the ultimate decision to locate in a particular country. The reasons cited include labor productivity, political stability, and available infrastructure. In addition familiarity, past experience, or the experience of competitors frequently led to the choice of one location over another without a complete examination of the alternatives. Thus the Caribbean Basin was often overlooked by those more familiar with Mexico or the Far East.

In addition to the quantifiable cost figures, an attempt was made to account for the various qualitative factors which those interviewed mentioned as influencing their location decision. These qualitative factors were quantified using an "Investment Decision Grid", and when the cost analyses were adjusted for these additional factors, the Caribbean Basin countries emerged as the lowest cost producer for two of the three products.

BACKGROUND

Production sharing is a process where advanced industrial societies shift the labor intensive portion of their operations overseas to reduce total production costs. It is the international division of labor, but with a significant variation. Instead of firms producing one product in one country, a single firm coordinates its operations to produce capital and skill intensive components in the United States and then ships these components overseas to be assembled in countries with low wage rates for unskilled labor.

There are three major U.S. programs which firms can use in production sharing operations. They are provisions 806.30/807 of the U.S. Tariff Schedule (TSUS), the Generalized System of Preference (GSP), and the Caribbean Basin Initiative (CBI).

The 806/807 provisions currently account for most of the production sharing by U.S. firms in developing countries. Firms assemble American made components abroad and then return the finished or semi-finished product to the U.S. Duty is paid only on the value added in the host country.

The GSP, unlike 806/807, provides duty free access to the U.S. market without requiring that U.S. components be used in the manufacturing process. Thus, duty is not even paid on the foreign value added to the U.S. components. However, eligibility for GSP varies by country and by product. More importantly, the present GSP agreement expires in 1985, and some developing countries have already had their eligibility restricted.

The CBI creates substantial new production sharing opportunities for the designated nations of the Caribbean. One of the major advantages over 807 is that products are completely duty free, rather than only duty exempt on the U.S. components. Similar to 807, the CBI has the advantage that it applies to all products (with some exceptions) coming from the Caribbean rather than only those products specifically eligible from particular countries. Finally, the CBI is

effective for 12 years, so it guarantees investors a secure future.

There are three ways a U.S. firm can organize a production sharing operation:

- o subcontracting with a local firm
- o operating under a Shelter Plan
- o direct foreign investment in an offshore manufacturing facility

In a subcontracting arrangement, a U.S. manufacturer contracts for finished goods to be produced overseas by a local firm at a negotiated price per unit. Under the Shelter Plan a U.S. manufacturer rents a complete factory, including labor, overhead, and supervisory personnel. The owner of an industrial estate or factory building acts as a landlord and offers a complete plant facility at a negotiated price per direct hour of labor. Direct investment commits the U.S. manufacturer to the ownership and operation of a plant in a foreign country.

COMPARATIVE COST ANALYSIS

Three products, representing different industries and requiring different skills and levels of sophistication, were chosen to provide the basis for a detailed cost comparison between the Caribbean and alternative production sharing locations. The three products are men's dress shirts, automotive flashers, and specialty power supplies. Men's dress shirts were chosen as an example for the apparel industry. Automotive flashers represent a broad range of products involving simple mechanical stamping and assembly processes. Specialty power supplies represent the labor intensive end of the high tech electronic industry.

The Philippines have the lowest total cost for producing men's dress shirts of any country studied, but this is true largely because textiles from the Far East, and shirting fabrics in particular, are approximately 30 percent cheaper than similar U.S. products. Although Philippine costs are lower than the Caribbean's, they are only marginally so; Haiti has virtually the same cost (less than 1 percent higher), and Costa Rica and the Dominican Republic are only 5 percent and 7 percent higher, respectively. With minimal cost reduction efforts, all three countries could become competitive with the Philippines.

The Caribbean is relatively free from apparel quota restrictions. The Far East is being severely restricted by apparel quotas now, and growth in certain TSUS categories has been severely curtailed in Mexico. In short, as access to

the United States market from many of the newly industrialized countries is increasingly restricted, the Caribbean becomes an increasingly promising production location.

Light, non-bulky automotive products like flashers can be competitively produced in Haiti and Costa Rica. Both countries' costs are lower than either Mexico or Taiwan. The product qualifies for GSP exemption except in Mexico and Taiwan which widens the gap of competitiveness in favor of the Caribbean Basin. The same differential advantages exist for production of this type of product under the CBI. The proximity to the U.S. market, the availability of a skilled labor force, and ease of controlling the operation from the U.S. are advantages.

Taiwan's cost, when material prices are adjusted to meet the Department of Transportation's material quality standard for the original equipment manufacturer, are higher than any of the Caribbean Basin countries. Individual items in Taiwan contributing to the high total cost of production are direct labor, overhead, duty, travel, and technical assistance.

In the case of specialty power supplies, no Caribbean Basin country is cost competitive with Malaysia, but Haiti and Costa Rica have lower labor costs. All Caribbean countries, except Barbados, can produce power supplies at lower cost than Mexico. The major reason for Malaysia's low production cost of power supplies is that material and preassembly costs are 200 percent less than those in the Caribbean. Malaysia is a GSP beneficiary for this product; if it were to lose this status, production costs would increase dramatically.

Since all Caribbean countries are beneficiaries under the GSP, and will remain so under the CBI, there is no tariff advantage to using higher cost U.S. components for the entire process. If foreign (i.e., non-U.S.) components were used selectively as in the Malaysian industry (the Malaysian electronic assembly industry uses 50 percent non-U.S. components) and preassembly done in the host country, costs could be reduced by approximately \$3.00 per unit, and all countries, except Barbados, would have lower costs than Malaysia.

Specialty power supplies produced in Mexico are not cost competitive with Malaysia or most of the CBC's. Since Mexico does not qualify for either the GSP or the CBI, products in Mexico do not realize the same cost reduction opportunities available through lower cost sourcing of materials since these would be dutiable.

Other Factors Influencing the Investment Decision

In addition to labor, duty, and material costs, many other factors indirectly increase costs. These are the factors associated with uncertainty; for example, political instability, strikes by labor, or power outages. To account for these influences and quantify the effect they have on final costs, PSI developed the Investment Decision Grid technique.

The Investment Decision Grid makes estimates of the impact of the following sets of intangible variables on final costs:

- o political - stability, government policies towards investors
- o labor - stability, reliability
- o transportation - reliability, access
- o infrastructure - communications, power, training programs, etc.
- o quality of life

A country is ranked on these variables, and the rankings are discounted by the weight attached to them. These discounted rankings are then combined to produce an adjustment factor which can be applied to the calculated cost figure to produce a more realistic estimate of comparative costs. It should be emphasized that since this technique relies on comparative judgements, it must be interpreted with caution.

Upon application of this techniques, the Caribbean becomes the lowest cost production location for two of the three representative products. Costa Rica, which has the benefit of relatively low costs in the first place, moves up in the rankings by reason of its stable political and social environment. Barbados, where higher wage rates might initially discourage investment, becomes more attractive due to the reliability and efficiency of its work force and stable government.

CONCLUSIONS

In conclusion, the growth prospects for production sharing in the Caribbean Basin countries are very favorable. The Caribbean has entered the first stage of the production sharing investment cycle; three-quarters of its 807 imports to the United States are apparel products. As the labor force and the indigenous entrepreneurs gain experience with producing for an export market, this developing expertise can be applied to other products.

There is a movement of production away from the Orient as wages begin to rise with the increasing level of development in many countries. In apparel the lack of additional quota in the Far East is driving many manufacturers to look for alternative locations. The Caribbean, since it is comparatively free from quota restrictions, is a logical place to consider.

Reinforcing the effects of the above factors is the influence of the CBI. Its first effect is to focus attention on the region; it highlights the Caribbean as an area of interest to overseas investors. Beyond this marketing role, however, it also offers substantial economic advantages. The benefit of guaranteed duty free access is significant when the GSP is in danger of being taken apart piece by piece, if not dismantled altogether.

It should also be noted that many foreign (Far East) manufacturers have established or are investigating manufacturing facilities in the Caribbean. The lure of quota-free production locations in the case of apparel and the attraction of duty-free entry into the U.S. market for the broad array of commodities included in the CBI are important factors.

The costs of production in the lowest cost Caribbean nations are competitive with the alternatives (Mexico and the Far East) in some of the product categories. There is, however, a wide range of costs among the different Caribbean Basin countries. Consideration of additional investment criteria using the Investment Decision Grid improves the ranking of some of the higher cost producers. Consideration of these factors overall tends to place the Caribbean in a relatively more favorable perspective, indicating hidden advantages of the Caribbean.

The major factor working against the Caribbean is lack of experience. Lack of manufacturing experience means that the work force has not had the opportunity to develop the necessary skills, discipline, and competence; local managers and entrepreneurs have not had the benefit of dealing extensively with a foreign market, and infrastructure is not always in place to handle a high volume of exports. These drawbacks are formidable, but the advantages exist to make overcoming the drawbacks worthwhile.

I. INTRODUCTION

A. Scope of Project

To help developing countries attract foreign investment, it is vital to know how United States corporations evaluate overseas investment alternatives. It is particularly important, during the early years of the Caribbean Basin Initiative (CBI), to provide Caribbean nations with an understanding of this process, so that they may attract investment and take advantage of the increased trade opportunities open to them. The A.I.D. Mission in Costa Rica commissioned Production Sharing International, Ltd. (PSI) and Free Zone Authority Services, Inc. (FZAS) to study these issues under contract #598-0619-3-6531339.

This study conducts a comparative analysis of manufacturing operations in the Caribbean, Mexico and the Far East and provides data allowing U.S. firms to look more carefully at the Caribbean Basin as a possible production sharing investment site. It highlights three industries which represent potential or current growth opportunities in the Caribbean. Their products use U.S. supplied components, which are assembled abroad and returned in finished form to the United States under Section 806.30 and 807 of the U.S.

Tariff Schedule. These tariff sections provide major opportunities for U.S. corporations interested in undertaking production sharing arrangements.

To assist companies in evaluating production sharing opportunities, this study compares a range of critical investment factors in the Caribbean Basin, Mexico and the Far East. Among the factors examined are:

- o basic economic factors of production (land/buildings, labor, capital, etc.)
- o infrastructure and general services
- o stability of the investment climate
- o tax, regulatory, and tariff provisions

Particular consideration is given to the expanded opportunities for production sharing allowed under the Caribbean Basin Initiative (CBI). The discussion addresses current or planned programs in the Caribbean Basin countries to improve investment conditions.

In addition to reviewing investment conditions from the perspective of corporations, the report also seeks to provide information useful to policymakers. This study points to actions which Caribbean/Central American countries and international development organizations can take to create jobs, expand exports and strengthen the industrial base in the region.

Production Sharing International, Ltd.

B. Approach/Methodology

1. Overview

The primary aim of project researchers has been to identify factors influencing location decisions by U.S. firms engaged in international production sharing. Historically, developing countries in the Far East have been the most extensive users of the production sharing concept. To clarify reasons for current trade and investment patterns, and to examine new opportunities for Caribbean Basin countries, a four-part work program was adopted. First, the identification of representative production sharing industries. Second, construction of profiles of typical firms to compare the costs of operating in alternative locations. Third, field research to obtain information on country-specific investment conditions and the effect of incentives and regulations on manufacturing industries. Finally, a comparison of the costs and benefits of investing in the Caribbean/Central America vs. the Far East and Mexico.

Due to recent field experience with production sharing industries in the Far East, project researchers undertook no direct field work in Asia for the project. However, they conducted interviews with sixty six corporate executives

and plant managers in Haiti, Mexico, Honduras, Dominican Republic, Costa Rica and in home offices in the U.S. The interviews clarified the reasons for the decision to locate offshore and revealed the relative importance of these factors in investment decisions. The interviews identified problem areas in manufacturing operations in the Caribbean, and provided a businessman's perspective on the comparative advantages of locating production operations in the Far East, Mexico and the Caribbean.

2. Product Selection

The first task was the identification of representative production sharing industries, specifically labor intensive (807 areas) for cost comparison. Three industries were chosen: men's long sleeve dress shirts, specialty power supplies using printed circuit boards, (PCB's) and automotive flashers. A brief description of the products and justification for selection follows.

- a. Men's Long Sleeve Dress Shirts - The apparel industry is the most prominent production sharing industry in the Caribbean/Central America countries. However, Far East countries maintain the major share of exports to the United States. Further, many U.S. manufacturers are importing apparel products from the Far East which are not made from U.S. raw material due to the comparative advantage in material costs in the Far East. (This

product also exemplifies distortions in trade which result from non-tariff barriers erected by the U.S. and EEC countries.)

Finally, the high labor-intensive apparel industry is the first type of manufacturing operation to locate in LDC's with an interest in promoting export-oriented growth and foreign investment. In other words, apparel products are "first to hit the beach" and represent an initial prospect for LDC's interested in promoting export-oriented development.

The product chosen for this analysis, men's long sleeve dress shirts, is indicative of the apparel industry. Approximately seven Caribbean Basin Countries (CBC's) produce this product. However, the majority of imports originate in Hong Kong, accounting for 34.8 percent of the cotton shirt imports in 1983 and Korea which tallied 52 percent of the man-made fiber shirt imports in 1983.

- b. Specialty Power Supply - Specialty power supplies were selected as a representative, labor intensive, electronic component. This product cannot be mechanically produced because the boards come in various shapes and sizes. This power supply is used specifically to synchronize and sequence all the functions of a commercial coffee dispenser. It consists of 161 components mounted on a 7" x 10" laminated base, which is connected to a heat synchronizer.

At present, this product is produced in Haiti, Costa Rica, Barbados, Malaysia and Mexico. With the advent of the RAM (Random Access Memory) chips in 1970 and the explosion of design and technology that followed in the 1970's, a tremendous growth market has developed and is expected to continue.

- c. Automotive Flashers - Automotive products have traditionally been manufactured either by U.S. captive producers or by U.S. suppliers manufacturing in the United States. Recently, the high cost of union labor has forced companies to move offshore for assembly of this product.

Many automotive products such as mini processors, window switches, wiring harnesses, turn indicators, instrument displays, windshield wipers, emergency flashers, upholstery, chassis, bodies and other motor vehicle parts are now being sourced offshore. These products, as well as completely assembled automobiles and trucks, are being imported under 807 or as pure imports from both Europe and the Orient. The automotive flasher was specifically chosen from this product group because of growth potential and to demonstrate the effect on 807 producers of a high-volume, light-weight non bulky product.

A flasher is an automotive replacement part that has a retail value of approximately U.S. \$0.59 - \$.70 for American car owners. There are three American manufacturers of this product with production facilities in Mexico and the United States. This product was also produced in Haiti until December, 1983, but the company has since sold the division to another producer. One Taiwanese company is also producing flashers using local components in the production components for the automotive aftermarket.

The product is composed of 12 different parts and requires eight different assembly processes. The first five processes are capital intensive and consist of manufacturing the components (metal fabrication and molding on high speed presses). The remaining three processes are simple assembly production and stamping. This part of the operation is considered labor-intensive;

mechanization is possible but requires a large capital investment with a long pay-back period.

The growth potential for this product is significant. Prior to 1983, flashers produced by American companies were used solely in American automobiles. Foreign car owners in the U.S. were forced to purchase replacement flashers directly from foreign manufacturers. However, during the last 12 months, U.S. manufacturers have started manufacturing flashers for imported cars.

3. Country Selection

Eleven countries were selected for a comparative analysis as potential sites for relocation or expansion of operations by a potential investor. In the Caribbean, the project researchers examined seven countries on the basis of their past experience with production sharing operations, state of economic development and growth potential. These countries were:

- o Jamaica
- o Haiti
- o Dominican Republic
- o Barbados
- o Panama
- o Costa Rica
- o Honduras

Although Mexico is not eligible for the Caribbean Basin Initiative, it was included in the study for comparative purposes. Particularly, because of its past success as a base for production sharing operations, and therefore because of the challenge it represents to Caribbean nations trying to

follow the same strategy. In the Far East, three countries - Taiwan, Philippines and Malaysia - were examined. Total share of exports to the U.S. for each of the targeted industry sectors determined selection of the Far Eastern countries.

4. Calculating the Cost of Production

The foundation of this study is the detailed analysis of the cost profile for a typical firm in each of the selected industries. Based on actual manufacturing operations in the Caribbean, Mexico and the Far East a Chart of Accounts was drawn up for each of the industries. A standardization of manufacturing variables ensures that all comparisons are consistent. The total cost of production per unit of output reflected the following factors:

- o Wage rates (including fringe benefits and non-wage costs)
- o Average productivity of labor
- o Average unit cost of freight by sea and air from the U.S.
- o Factory overhead
- o Direct utility expenses
- o Expatriate personnel
- o Tax payments required by the host country
- o Financial costs

5. The Adjustment Factor: The "Investment Decision Grid"

In addition to the strictly economic factors of production outlined above, other considerations strongly influence the location decision. These factors are difficult to quantify. However, they are a major factor in the evaluation of the competitiveness of production in the Caribbean relative to the Far East. The use of an "Investment Decision Grid"* provides an estimate of the effect these tangible factors will have on final production costs. The factors considered in the "Investment Decision Grid" are:

- I. Stability of the Investment Climate
 - A. Stability of the Political System
 - B. Stability of Social/Civil Conditions
 - C. Stability of the Economy
- II. Labor
 - A. Labor Availability
 - B. Labor Stability / Union Disruptions
 - C. Work Ethic / Labor Productivity
 - D. Tech Skills / Middle Management Availability
- III. Transportation
 - A. Transportation Reliability
 - B. Port/Airport Facilities
 - C. Quality of Infrastructure
- IV. Services
 - A. Services Reliability
(Communications/Electricity)
 - B. Tech Supply Support and Business Services
- V. Government Policies
 - A. Investment Incentives
 - B. Regulations
- VI. Access to United States Market (Quotas, GSP, CBI)
- VII. Quality of Life

* Production Sharing International developed the "Investment Decision Grid" and has successfully used it to help clients locate offshore production sharing operations.

The weighting and ranking of factors are independently determined in order to eliminate statistical bias. First, each group (I - VII) is weighted against each other in accordance with the importance of each group in the location decision process. This ensures that the sum of one group cannot overwhelm another group. The factors within each group are then weighted against each of the other criteria within the group. The sum of the factors equals the points allocated to the group.

After each factor is ranked and weighted, a total "adjustment" percentage is assigned to each country. This adjustment factor is then divided into the total cost of production to fully illustrate the cost impact of the intangible criteria for location decisions.

Baseline economic data on the macroeconomic conditions in each of the selected countries appear as Exhibit A in the appendix.

II. BACKGROUND

A. Inducements for Production Sharing

"The mutually beneficial sharing of the productive assets between or among developing and developed nations to produce lower cost products for a given market."

Production sharing, a phrase coined by Peter Drucker¹, is a process whereby advanced industrial societies shift a portion of their labor intensive operations overseas to reduce their total cost of production. As such it represents the integration of production on a global scale where operations are performed in a country according to its comparative advantage.

This decentralization of operations is not simply the fulfillment of the factor endowment theory of neoclassical economics. Rather instead of firms in each country producing goods according to local factor endowments, a single multinational firm seeks to lower its overall costs by producing each portion of its goods where the costs are lowest.

¹ Peter F. Drucker, Managing in Turbulent Times, Harper & Row, 1980.

In the case at hand we concentrate on American firms who have moved their labor intensive operations to countries where labor rates are lower. There are three major U.S. programs which will effect the development of production sharing operations by U.S. firms. They are the provisions 806.30/807 in the U.S. Tariff Schedule (TSUS), the Generalized System of Preferences (GSP), and the Caribbean Basin Initiative (CBI).

1. TSUS 806.30/807.0 Provisions

The 806/807 provisions account for most of the production sharing by U.S. firms in developing countries.

U.S. firms assemble American-made components abroad and then return the finished or semi-finished product to the US. Duty is paid only on the value-added in the host country. The total value of 806/807 imports has increased since 1966 from U.S. \$950 million to U.S. \$18.3 billion in 1982. Further, 806/807 imports now account for 7.55 percent of total imports in the US. Specifically, these tariff provisions state:

807.00 00 1 Articles assembled abroad in whole or in part of fabricated components, the product of the United States, which (a) were exported in condition ready for assembly without further fabrication,

(b) have not lost their physical identity in such articles by change in form, shape, or otherwise, and (c) have not been advanced in value or improved in condition abroad except by being assembled and except by operations incidental to the assembly process such as cleaning, lubricating, and painting are assessed...a duty upon the full value of the imported article, less the cost or value of such products of the United States.

806.30 001 Any article of metal (except precious metal) manufactured in the United States or subject to a process of manufacture in the United States, if exported for further processing, and if the exported article as processed outside the United States, or the article which results from the processing outside the United States, is returned to the United States for further processing is assessed a duty upon the value of such processing outside the United States.

The major difference between these two provisions is the permitted entry of metal articles (except precious metal) which require further processing under TSUS 806. Whereas TSUS 807 allows for the import of finished products.

Imports under TSUS 807 far exceed imports under TSUS 806.30; only 2 percent of the total 806/807 imports utilize 806.30. Imports under 806 are generally heavy industry products such as wrought aluminum, iron and steel, and some categories of semiconductors. More than four-fifths of these imports have come from the industrialized countries, particularly Japan, West Germany, and Canada. Mexico and Malaysia are the only developing countries with significant 806.30

imports to the U.S. 806.30 activity in the Caribbean Basin countries to date has been almost non-existent.

2. Imports Under Generalized System of Preferences (GSP)

The GSP, unlike 806/807, provides duty-free access to the U.S. market without requiring that U.S. components be used in the manufacturing process.* However, it is sharply restricted as eligibility for duty-free treatment of many articles, particularly agricultural products, applies only to a certain period of the year under GSP. This tariff provision, enacted in 1976, presently applies to 143 countries and includes 3,000 categories of articles (defined at the 5-digit level of the Tariff Schedules of the United States). GSP imports have grown from U.S. \$3.7 billion in 1976 to U.S. \$8.4 billion in 1982 and represent 3.5 percent of total imports to the United States. There is a local content requirement of 35 percent for a product to qualify as a GSP import.

* Imported goods are free of duty if the cost or value of materials produced in the developing country together with direct costs of processing equals at least 35 percent of the articles appraised value when imported.

The advantage for U.S. businessmen of using GSP for production sharing is that no duty at all is paid on the entire product. Under TSUS 806/807, duty is paid on everything except the value of the U.S. components. On the other hand, GSP covers only a limited number of products, requires high value-added in the developing country, and removes any tariff benefit for using U.S. produced components. The attractiveness of GSP may be further limited when the agreement comes up for renewal in 1985. The Generalized System of Preferences Renewal Act, introduced in the Senate, would limit any GSP-eligible country to U.S. \$25 million or a 25 percent share of the U.S. market for a given product. The existing legislation imposes a U.S. \$53.3 million limit or 50 percent market share. The proposed curtailment of GSP benefits may increase relocation by Far East producers to countries that have yet to reach the proposed new limits--and to shift toward use of 806.3/807 tariff provisions.

3. Caribbean Basin Initiative (CBI)

The recent advent of the Caribbean Basin Initiative (CBI) has created further production sharing opportunities for U.S. corporations. To a large extent these opportunities remain untapped but in the next few years as the benefit of

this strategy accrues to the pioneers, others will move to use it themselves. The main provisions of the CBI eliminate duties on all products, with certain exclusions, entering the U.S. from any beneficiary country in the Caribbean and Central America for a period of 12 years. This unprecedented trade agreement represents the first time the U.S. has extended preferential trade provisions to any regional group of countries.

One of the major advantages of the CBI is that the legislation applies to almost all products within included categories, whereas the GSP applies only to a selected list of items. Eligibility for duty-free treatment of many articles, particularly agricultural products, applies only for certain periods of the year under GSP, while eligibility is year-round under the CBI. The CBI can also eliminate the need for the 35 percent value-added content mandatory under the GSP. If U.S. raw materials and components comprise 15 percent of the value of the product, this can be deducted from the 35 percent local value-added provision.

One of the major disadvantages of the CBI is its exclusion of certain products from duty-free entry to the U.S. These products include:

- Textile and apparel articles which are subject to textile agreements;
- Footwear, handbags, luggage, flat goods, work gloves and leather wearing apparel; and
- Watches and watch parts;

* * * *

In sum, TSUS 807 has historically offered the most opportunities for production sharing ventures with U.S. manufacturers. Not only are total imports under this tariff provision far higher than those under TSUS 806.30 and GSP, but the Caribbean countries also have a history of success with production sharing in industry sectors benefiting from 807. The Caribbean Basin Initiative increases the attractiveness of the Caribbean as a base for those 807 and GSP industries now operating in the Far East. It offers more liberal duty-free provisions than under 807 and greater certainty of access to U.S. markets than GSP.

B. Patterns of Production Sharing Activities

1. Principal Developing Countries Using TSUS 807

The major users of 807 are the industrialized countries, with the exception of Mexico (the second largest user) and

Malaysia (the fifth largest user). In 1982, over 70 percent of all imports under 807 were from five countries with Japan accounting for 28 percent of all imports. The other major users of these tariff provisions include West Germany and Canada, but these countries have been experiencing a gradual decline in the amount of 807 exports to the U.S.

Although the industrialized countries as a whole generate a larger share of 807 imports than do the Newly Industrialized Countries (NIC's) and developing countries, their imports use a far smaller share of U.S. components than do 807 imports from developing countries. For industrialized countries, the duty-free value (i.e., the percent of the total product which represents U.S. components) was approximately 6 to 8 percent of the total value. For the LDCs, the duty-free value from 1979-1982 averaged nearly 50 percent. The reasons for this difference rest with the type of 807 manufacturing which occurs in the NICs and the developing countries. In the developed countries, manufacturing activity is highly concentrated in high value machinery and equipment. The duty-free value of their 807 imports represents goods used to satisfy U.S. standards, operating conditions or tastes. In the LDC's, particularly the Caribbean countries, the majority of 806/807 manufacturing activity is simple assembly and transformation of U.S. components.

The dominance of the apparel industry is due to both economic and political reasons. The apparel industry's low level of capital investment (an average of US\$1000 per worker) and its labor intensity have put it at the forefront of offshore assembly.

Difficulty in obtaining spare parts, shipping times and costs have all contributed to a reduction in new investment in plant and equipment in the Far East to produce products for the U.S. market.

An investment in plant and equipment in the Caribbean Basin Countries tends to minimize the negative factors of time and distance. Manufacturing cycles in a C.B.C. can be a matter of weeks as contrasted to months in the Far East. Travel convenience and expense is minimized in the Caribbean; raw material and spare parts are more readily available and in general operating an owned facility in a CBC is made easier than in the Orient.

Other factors, however, are now being given major consideration. Political stability of the countries' governments is a major consideration. Safety of investment and protection against losses resulting from confiscation, civil disobedience, acts of violence, riots and revolutions are now of paramount interest.

TABLE A

MARKET SHARE OF 806/807 ITEMS IMPORTED TO THE UNITED STATES
(1982)

Japan	27.9%
Mexico	15.7%
West Germany	14.6%
Canada	6.9%
Malaysia	6.1%
All other countries	28.6%

Source: United States International Trade Commission

TABLE B

U.S. IMPORTS UNDER TSUS 807 FROM LDCS, 1982
(in millions of dollars)

Country	Total Value	% of Total Imports
Mexico	2,804.8	15.7
Malaysia	1,096.2	6.1
Singapore	836.2	4.7
Philippines	660.2	3.7
Taiwan	543.0	3.0
Hong Kong	508.3	2.8
South Korea	375.3	2.1
Haiti	179.9	1.0
Dominican Republic	131.0	.7
Brazil	123.1	.7
Thailand	107.3	.6
Barbados	83.6	.5
El Salvador	77.6	.4
Indonesia	69.4	.4
Costa Rica	58.9	.3
Honduras	22.6*	.15
Jamaica	17.1*	.1

* 1981 statistics

N.B. All other imports from LDCs are valued at less than U.S. \$10 million and account for less than one-tenth of 1 percent of the total value of imports.

Source: U.S. Department of Commerce

2. Principal Industries Using TSUS 807

a. Industry Sectors

Motor vehicles are the major item imported under 807, accounting for 39 percent of the average annual value of all item 807 imports in 1982. However, this product category has been experiencing a declining share of the market as office machines and parts, semi-conductors and textiles continue to grow. Watches and clocks are also significant, but declined from \$195 million in 1979 to \$135 million in 1982. The single most important growth products produced under 807 during the past two years have been game machines: in 1981 the total value of imports to the U.S. was U.S. \$98 million, compared with U.S. \$211 million in 1982. There was a fivefold increase in home video games in 1982 from 39 million in 1979 to 196 million in 1982. This accounted for 93% of the 1982 import of game machines.

b. Caribbean/Central America

Despite close proximity to the United States market and preferential trade agreements, 807 exports from the Caribbean/Central America account for just 2.5% of total

value of 807 imports to the United States. Product concentration is high: apparel products account for over 75% of all 807 exports from the region. In only one country, Barbados, are exports of non-apparel products the leading sector. Another striking feature of production sharing industries in this region is the high value of U.S. components used in the manufacturing process. Almost 100% of components are imported, indicating that raw materials are not available in the local economy or there is an excessively high duty for non-U.S. components. This fact is of interest to U.S. firms and policymakers alike.

The dominance of the apparel industry in the Caribbean has risen for both economic and political reasons. The apparel industry's low level of capital investment (an average of US\$1000 per worker) and its labor intensity have put it at the forefront of offshore manufacturing. Moreover, protectionist measures in the United States and the EEC have shifted traditional flows of exports from developing countries. Apparel imports to the United States are controlled by bilateral agreements (quotas) negotiated under the Multi-Fiber Agreement (MFA). As quota allocations become filled in one country, overseas producers are locating additional production in other countries - such as Caribbean/Central American nations - where access to the United States market remains possible.

Quota limits for entry into the United States market are a major problem for apparel producers in the Far East, particularly Taiwan, Hong Kong, South Korea and the People's Republic of China. Despite the fact that costs have traditionally been cheaper in the Far East (see Section III for a more extended examination of this topic), United States importers have been forced to purchase goods elsewhere. Production facilities in the Caribbean/Central America began to grow during the late 1960's. In recent years, apparel production in Caribbean and Central American countries has increased. As a result, quotas and restricted access to the United States market have been imposed for specific products in Costa Rica, Haiti and the Dominican Republic.

In all high-volume export countries of the Caribbean/Central America region, successful apparel exporters have developed a strong network of local subcontractors. Specifically, direct foreign investment is negligible; local entrepreneurs are producing apparel products under the design and specification of U.S. firms. This situation reflects the pattern of the Far East, where almost 100 percent of apparel products produced for export are manufactured by local entrepreneurs to U.S. companies' specifications.

The LDC's in the Caribbean/Central American region have tried to attract other industry sectors, particularly electronics. Progress to date has been slow. Only Barbados and Haiti have successfully diversified the industry mix of production sharing industries.

c. Mexico

Mexico is the largest LDC exporter of 806.30/807 products. Approximately 35% of all Mexican manufactured goods entering the United States from México under these tariff provisions are produced in the border area of Mexico. Production is highly concentrated in electronic products, motor vehicle parts, television components and semiconductors. In contrast to the Caribbean/Central American countries, production of apparel products account for less than 7% of total exports. The 806/807 manufacturing activity is one of the most dynamic sectors in the country and such exports have accounted for an average of 44 percent of all manufactured exports over the period 1975-1978.

Proximity to the United States and the common border makes possible reliable and inexpensive transportation - a factor particularly important for high volume bulk products such as television components and motor vehicle parts.

Moreover, the proximity of the Mexican border plants makes it easier to control the production process than is possible with many Caribbean and Central American-based facilities.

Mexico does not have extensive investment incentives like tax holidays or government sponsored training programs. However, the In-bond Industry Program* allows the duty free importation of capital goods and raw materials, provided that the finished products are all exported.

Approximately 50% of the value of the 806.30/807 goods produced in Mexico represents imported components from the United States. Although this "duty-free" value is lower than in the Caribbean/Central American countries, few local purchases of intermediate goods are realized. The higher value added content reflects a more sophisticated manufacturing and transformation process. For example, in the semiconductor industry, all raw materials may be imported but the production may involve high labor content such as 120 processes rather than simple assembly during the final stages of production.

* Industries operating under these provisions are known as "Maquilas" in Mexico and other Spanish-speaking countries. In English-speaking countries they are also known as "draw-back" industries.

Local subcontracting is almost non-existent except in the apparel sector and electronics in Tijuana and western Mexican states. Rather, the norm appears to be direct foreign investment by American manufacturers in plant facilities, equipment and machinery. The majority of production-sharing industries have constructed their own factory buildings on industrial estates. Export processing zones, or similar designated areas for export manufacturing activities, are not used in Mexico. Instead, private and public industrial parks have been established along the United States - Mexican border, many of which contain custom-designed factories.

d. The Far East

Despite higher transportation costs, higher labor costs, and in the case of apparel, quota restrictions, imports from the Far East have flourished. However, the bulk have been pure imports rather than 807.0 operations with high U.S. component value. In 1982, 807 imports to the United States accounted for 22 percent of the total value. No one country has a dominant share of the market: Singapore, Malaysia, Taiwan, South Korea, Hong Kong and the Philippines produce less than 5 percent each of the total 807 imports to the United States. Production concentrates on a few sectors: semiconductors represent approximately 75

percent of all exports from the region. Watches, toys, video game machines, television and radio apparatus are secondary exports. Apparel products are negligible.

There is a wide disparity in the amount of U.S. components used in the manufacturing process. In Hong Kong and Taiwan materials from the U.S. account for only 18 percent of the total cost of production. In Malaysia approximately 55 percent of the components (not necessarily the value) used in electronic assembly are imported from the United States. In the Philippines, an average of 68 percent of raw materials used in the manufacturing process for 806/807 goods are imported from the United States. However, for certain product categories, such as garments and simple electrical goods, the percent of U.S. raw materials is less than 10 percent.

Direct foreign investment by American companies has largely been eliminated, except in new product development. Local entrepreneurs subcontracting to U.S. companies are the norm, rather than the exception. Further, a general pattern of subcontracting operations outside a country, particularly Hong Kong and the Far East has developed. Taiwan and Hong Kong no longer produce mature, labor intensive products with long production runs or low value to weight and volume products. Rapidly rising labor costs in Taiwan and Hong Kong

have forced manufacturers to turn away from routine, labor intensive assembly operations. They have shifted their operations to produce low-priced components which are assembled in turn by those countries in the region with low labor costs such as Sri Lanka and the Philippines.

3. Methods of Production Sharing

There are three ways in which a U.S. firm can produce goods in manufacturing facilities outside the U.S. under TSUS 806.30/807:

- subcontracting with an offshore local firm
- operating under a shelter plan
- direct foreign investment in an offshore manufacturing facility

In subcontracting arrangements, U.S. firms arrange for the manufacture of parts, components or assembly of goods overseas to be undertaken by a local firm. As with direct foreign investment, the purchaser arranges the marketing in advance. The main difference between these two forms of producing under 806/807 is that sub-contracting with an offshore local firm does not involve direct financial

investment in an offshore facility. The U.S. manufacturer merely supplies or arranges to supply the offshore local firm with materials, and design specifications. (N.B. equipment and technical assistance may also be sent to the local offshore firm.)

The second form of manufacturing operations is the shelter plan. The concept of a shelter plan is to rent a complete factory, including labor, overhead and supervisory personnel. Under this arrangement, the owner of an industrial estate or factory building offers a complete plant facility at a negotiated price per direct hour of labor. The lessee only needs to furnish one manager, the production volume and occasionally some specialized equipment.

The shelter plan concept originated in the Nogales Industrial Park in Mexico in 1971. The purpose of the program was to reduce the risk of the potential investor by eliminating the need for direct capital investment while maintaining complete control over the production process. At present, four countries use shelter plans for manufacturing operations: Costa Rica, Haiti, Mexico, and Jamaica. The actual use of shelter plans, however, is quite limited. Less than 50 offshore companies actually use this form of production for 807 industries. The major problems cited by industrialists include management disputes in the host

country and loss of control over the production process. Further, the actual cost of production, in the long term is slightly more expensive than direct foreign investment or subcontracting. Another factor that inhibits the use of shelter plans is the lack of awareness and knowledge on the part of both host countries and industrialists.

Direct foreign investment involves a financial investment overseas in a wholly-owned subsidiary or joint venture operation. Components are then shipped from the U.S. to the factory overseas for further assembly and then re-exported to the U.S.

The most popular form of producing for 807 industries is subcontracting. Although exact figures are not presently available for all industries, our surveys indicate that approximately 65 percent of all 806/807 imports to the U.S. are manufactured by industrialists in the host country under specifications supplied by U.S. buyers. The obvious advantages of subcontracting over direct foreign investment, are the elimination of capital and start-up costs, and a potentially lower cost of production in the long run. However, quality control, equipment servicing, and efficient process technology could present major problems in

sub-contracting operations. In general, where universal machinery exists, representing low capital investment, the likelihood of successful subcontracting is higher. The production of electronics and wearing apparel is especially appropriate for subcontracting.

III. A COMPARATIVE COUNTRY ANALYSIS

A. The Investment Decision-making Process

The selection of a specific off-shore location involves the consideration of a number of factors (see Appendix E for an indepth discussion). The decision-maker has control over some of these factors and not over others. The degree of risk will be measured to a large extent by the factors over which there is no or little control. Some of these, which have a significant impact on the decision-making process, cannot easily be quantified. Economic considerations are usually the major factor influencing decisions, but other less tangible factors, such as the quality of life in the host country and personal contacts often play a major role. This section of the report attempts to combine both the cost factors with the qualitative factors present in investment decisions. The non-cost factors were analyzed and computed in the "Investor's Decision Grid". The result of this grid develops an adjusted cost factor which when combined with the costs of production indicates the total "bottom line" costs for comparative purposes.

Overview

The basis for this analysis is a survey conducted by team members in the Dominican Republic, Mexico, Haiti, Costa Rica, Honduras and the United States. The survey focused on the three products analyzed for this report (men's long sleeve dress shirts, automotive flashers, and specialty power supplies). A total of 66 Chief Executive Officers and Plant Managers were interviewed. Although this sample is by no means representative of all industries producing under TSUS 806.30 and 807 or statistically accurate, it does provide an adequate basis for analysis of the three products selected for the study.

Survey Questionnaire

Location Summary

What are the three most important factors which cause you to produce offshore?

44%	Labor cost
27%	Availability of labor
10%	Access to shipping services
7%	Availability of Technical Personnel
7%	Productivity of labor
2%	Incentives
2%	Access to regional markets
2%	General conditions of life
2%	Availability to form joint venture
<u>100%</u>	

Why was it necessary to move your operations abroad?

47% Competition
42% High labor costs
6% Availability of labor
5% Offshore problems, other sites
100%

Do you find your offshore facilities as flexible in manufacturing as your U.S. facilities?

60% Same 40% Less 0% More

If not, why not?

54% Language
15% More difficult to expand operations
12% Lack of technicians
8% Lack of experienced labor
7% Manufacturing turn time
4% Difficult startup
100%

Was your decision to produce offshore the result of a rational, logical decision making process within the organization?

90% Yes 10% No

Were other locations given serious consideration? If so, which ones?

39% Mexican Border
22% Orient
12% Haiti
8% Costa Rica
5% Honduras
4% Jamaica
4% Colombia
4% Lesser Antilles
2% Barbados
100%

What effect does geographical proximity to the U.S. market have on your investment decision?

82% A significant effect
9% The decisive factor
5% A minor effect
4% Irrelevant
100%

What are the major obstacles to operating abroad from the United States?

60%	Customs
12%	Bureaucracy
12%	Language
8%	Unions
8%	Transportation
<u>100%</u>	

Among your offshore locations, where would you be most likely to expand abroad?

33%	Mexico
17%	Costa Rica
17%	Haiti
17%	Orient
16%	None
<u>100%</u>	

For more details of the survey see Appendix D1.

The surveys and research conducted for this study indicate that a general pattern of investment exists in production sharing operations. From a macro perspective, apparel manufacturers are generally the first industries to invest in an offshore location. After this base has been successfully established, operations such as simple electronics assembly develop. The transition to more sophisticated products and process technologies usually only develops after a sufficient service and physical infrastructure and local entrepreneurial talent has developed.

On the micro level, this study has not revealed any general pattern of investment in terms of subcontracting, direct foreign investment or the use of shelter plans. The number of surveys conducted was insufficient to statistically

determine a clear investment life cycle.

The survey did indicate that the major motivation for investment offshore was to lower the cost of production in response to increasing competition in the international marketplace. One hundred percent of the corporate executives interviewed stated that an offshore location was essential if the company was to retain or increase their percent of the market share for their products. The executives indicated that competition was not just from other U.S. manufacturers, but increasingly from the Far East.

Another important observation is that most products produced under 806/807 are not easily adaptable to capital intensive automation. In many cases, a shift from labor intensive processing to a more capital intensive method of production would require substantial investment and a long pay-back period. The apparel industry is a prime example of this: lasers and other highly automated equipment are available to cut and sew garments, but remain far more costly than using manually operated sewing machines.

Another general finding of the survey was that the key factors influencing investment decisions were the cost, productivity and availability of labor. Given a certain assurance of political and economic stability in the country,

the labor factors were the most important criteria for investment. The only exception to this was among apparel producers. Apparel products are the only products chosen for this study which are subject to bilateral agreements and for which access to markets in the industrialized countries is restricted. Thus, for this product, access to markets or access to an allocation of the quota was considered as important as the labor variables.

Investment incentives, such as income tax holidays were generally considered unimportant by foreign investors. Due to the practice of transfer pricing, whereby manufacturers move products at cost rather than a cost plus profit basis, no profits are usually recorded in the host country. Therefore, income tax holidays were considered irrelevant. In contrast, the ability to import raw materials and equipment was considered a necessary condition for investment. However, all the countries analyzed in this report offer this investment incentive and therefore no one country realizes a comparative advantage over another.

Export processing zones (EPZ) generally received favorable reactions among foreign investors. With the exception of Costa Rica where the EPZ suffers from poor location, most investors felt that the availability of standard factory buildings and centralized processing and

customs clearance was attractive. However, this factor was not considered to be critical to the investment decision if infrastructure, streamlined processing and the ability to import raw materials duty-free was available elsewhere in the country.

B. COMPARISON OF PRODUCTION COSTS

1. Cost Variables

The following is a detailed comparison of the costs of producing the three selected products in the CBC's, Mexico and the Far East. These costs include only the economic costs of production. The adjusted cost using the Investors Decision Grid will be discussed in Section C. The summary costs are only included in the text of the report; the detailed analysis can be found in Exhibits B3-B5 in the Appendix.

This cost analysis compares costs of producing three products (men's long sleeve dress shirts, power circuit boards and automotive flashers) in the CEC's, Mexico and the Far East. The data represents costs during the third year of production and beyond. During the first two years, start-up costs will vary with each individual company. Further, a two-year period is generally anticipated to absorb start-up costs and attain a constant level of production.

It should be noted that only manufacturing costs and indirect assembly costs are shown. All associated costs such as selling and distribution, administration, advertising, marketing, etc. are omitted. These costs occur downstream and do not vary with different offshore locations.

Additional assumptions for consistency were also made for each product. The following is a brief description of these manufacturing variables.

a. Direct labor

Direct labor rates range from U.S. \$.31 per hour for men's dress shirts in Haiti to U.S. \$1.50 per hour for power supply units in Barbados. Hourly rates are the average rates paid in the various countries for assembly of the products involved. They exceed the legal minimum wage in all cases. The Investment Decision Grid assesses the effect of such less tangible factors as labor availability, work ethic, middle management skills and labor stability.

i. Productivity

The labor productivity factor measures the variance from U.S. productivity standards. The labor variance is a measure of all labor losses, and thus includes machine down time, management convenience transfers, power outages and other non-productive wages paid.

This item has been added to cover contingencies which occur in any operation and result in excess costs. Various locations experience higher labor variances and these have been estimated from experiences in the Asian and Caribbean countries.

Productivity is expressed as a percentage after deducting a labor variance factor from standard U.S. productivity.

ii. Fringe benefits

Direct labor fringe benefits were calculated as a composite percentage of direct labor cost. All benefits, whether legally required or customarily paid, are converted to fractional hours and then expressed as a percentage of the hourly rate. They range from 28.5% to 43.0%.

Fringe benefits vary considerably at different locations and include many items not usually found in U.S. operations. For example, in addition to the usual social security, holidays and vacations, there are contributions required of the employer for a number of other activities such as training institutes, housing assistance, a worker's bank, education tax, severance pay, and legal bonuses (for instance, 13 months pay per year, or 48 hours paid for 44 hours worked).

b. Freight

For all the Far Eastern countries, no freight costs for shipment of materials from the United States are assumed. Components and other materials for assembly are purchased and manufactured locally. The cost of shipment of these goods within the country are absorbed in the material costs.

In all cases analyzed, freight is considered to be in full containers, and shipments are made by water. These costs are for the more conventional operations, although it is recognized that other products with a high labor content per pound may be flown.

The freight rates shown are currently in effect for the routes, weights and distances indicated. Since freight tariffs are not uniform for all products by the carriers, some inconsistencies are unavoidable. The product category used for the freight quote affects the price considerably. However, rates are generally comparable.

c. Preassembly Costs

Preassembly costs are shown for those operations performed prior to final assembly. In the case of men's dress shirts, these costs include cutting, bundling and packing for export. For the flasher unit, the preassembly includes such items as preparing ribbons, winding heater wires, preparing blade assembly, extruding base and assembling blade. The power supply includes preparing circuit board laminants, preparing all components including testing and packing for export. Preassembly operations for the Caribbean Basin are all performed in the U.S. For the Orient, they would, for the most part, be performed in Malaysia, Taiwan or the Philippines as part of the direct labor cost. A smaller

portion of preassembly functions would still be required for a U.S. company considering Far Eastern imports as an expansion alternative. Such items as pattern making, prototype models, engineering specifications, quality control procedures, component selection and fabric requirements would be performed in the U.S.

d. Travel

Travel and technical assistance include the expense of support personnel visiting the factory, whether in the Caribbean or the Far East. Support personnel would include engineers, quality control specialists, apparel merchandisers, product designers and production specialists, as well as supervisory management personnel. These costs were developed by estimating the trips per year required for each product line in each location, identifying trip and related cost per trip, length of stay and the frequency of staff function.

The primary purpose of these visits is to inspect and maintain machinery and equipment and to monitor quality control. "Travel" cost included in General and Administrative (G&A) is intended to cover local travel and an occasional trip by the local manager to the U.S.

It is also assumed that visits by support personnel are not for purposes of training, instructing or otherwise assisting with the manufacturing or assembly operations. Under this interpretation, support costs are not dutiable. It is assumed that no other assists are offered to the offshore operation, such as equipment furnished at less than market value, low cost loans or other subsidies which would be dutiable.

e. Export Incentives

The value of export incentives is largely effective during the start-up years of an operation. Training subsidies and special efforts to train supervisors as well as direct labor workers are generally over in the first two years. The cost analyses assume the first full year of operation, usually in the third year.

The effect of other incentives, tax holidays, free importation of equipment and materials, absence of permits, licenses, etc. are all fairly uniform among the countries studied. The export incentive effect on cost was not considered since there was so little variation.

2. Costs of Producing Men's Long Sleeve Dress Shirts

Apparel production is well suited for a developing country's introduction to manufacturing. Start-up costs are modest, the skills involved are easily learned and return is quick to come.

As would be expected, this is an important sector in the Caribbean. The cost comparison below indicates that significant growth opportunities still exist. (See Appendix, Exhibit B4).

TABLE 1: SUMMARY OF UNIT COST COMPARISONS
MEN'S DRESS SHIRTS (US \$/dozen)

<u>COSTA</u> <u>RICA</u>	<u>HAITI</u>	<u>DOM.</u> <u>REP.</u>	<u>JAMAICA</u>	<u>BAR-</u> <u>BADOS</u>	<u>PANAMA</u>	<u>HON-</u> <u>DURAS</u>	<u>(JUAREZ)</u> <u>MEXICO</u>	<u>PHILIP-</u> <u>PIRES</u>
\$54.25	\$51.76	\$55.50	\$56.92	\$60.20	\$59.45	\$56.93	\$54.40	\$51.43

a. Caribbean Basin Countries

Haiti is the lowest producer in the Caribbean for men's dress shirts at \$51.76 per dozen. (See Table 1). Costs are approximately 5 percent lower than in Costa Rica, the second lowest cost CBC and 16 percent lower than Barbados the highest cost CBC. Haitian apparel products, like all CBC

apparel products, utilize U.S. textile components under TSUS item 807. As a result, CBC unit costs are higher than the Far East because of the higher U.S. textile costs.

The cost of materials in the CBC apparel production averages 65 percent of the total unit cost (See Table 2). Were a U.S. manufacturer sewing shirts in the Caribbean to use Far East textiles, the CBC's costs would fall by approximately \$1.08 per dozen after U.S. duties were paid on the Far Eastern textiles.

Panama and Barbados by comparison with other CBC's have costs 15 percent and 16 percent higher than Haiti respectively and 10 percent and 11 percent higher than Costa Rica, the two lowest cost countries.

b. Mexico

Mexico has a long history of producing low cost apparel for export to the United States under TSUS 807. The Maquiladora Program today employs more apparel workers than any of the neighboring CBC's although still way below the Orient.

Labor costs rose during the seventies and Mexico began to lose its competitive position with respect to both the Orient and the CBC's. However, the devaluations in the wake

of Mexico's financial difficulties have reduced Mexican costs. Nonetheless, they remain higher than those in Haiti and Costa Rica, and competitive with the other Caribbean countries.

As with the Caribbean countries using U.S. textiles, material is the largest single cost component representing 67 percent of the total unit cost in Mexico. As in the case of the CBC's a lower cost source of textiles could reduce total Mexican costs by more than \$1.00 per dozen.

Mexico has a distinct freight cost advantage due to its common border with the U.S. There is a compounding effect because southbound freight is dutiable by U.S. customs. In the case of Mexico southbound freight is much lower than any of the CBC's.

c. Philippines

Men's dress shirts can be produced in the Philippines at the lowest total cost of any country analyzed.

The cost comparison favors the Philippines by less than one percent, implying that the CBC's can become the lowest cost producers with only minor improvements. Total costs in Haiti are essentially the same as those in the Philippines and with any significant reduction in material costs Haiti would become the lowest cost producer.

Production of this apparel product in the Philippines is cost effective due to the source of raw materials, labor costs and productivity. Raw materials are imported from either Taiwan, Hong Kong or South Korea. The average price of this fabric is 30% less than the cost of similar material from the United States. Labor costs are among the lowest in the world, productivity is high and industrialists benefit from a 48 hour work week.

Despite the distance from the United States, freight costs from the Philippines are also competitive with the Caribbean. This is a result of the frequency and volume of shipment rather than simply the distance. If the textiles are cut in the Philippines, however, the TSUS 807.0 exemption is lost and duty is paid on the total value of the finished product (including the material cost).

The cost differential between producing in the Philippines and the Caribbean is marginal in most instances. Haiti has virtually the same cost (less than 1 percent higher), while Costa Rica and the Dominican Republic are only 5 percent and 7 percent higher, respectively.

TABLE 2

MEN'S DRESS SHIRTS
PERCENT OF TOTAL OFFSHORE ASSEMBLY COST

	Costa Rica	Haiti	Dom. Rep.	Jam.	*** Mexico Juarez	Panama	Ebóos	Hond.	CBC Avg. ***	Phil
Direct labor	26%	18%	32%	27%	32%	33%	35%	31%	30%	19%
Factory Overhead	36	44	39	41	43	38	35	39	39	47
General & Admin.	13	18	13	13	15	11	12	11	13	16
Freight*	32	26	15	17	8	19	22	18	21	36
Duty	37	39	35	34	36	33	33	34	35	205
Material**	67	70	66	64	67	61	61	64	65	61

* Totals will not equal 100% because of rounding and the inclusion of onshore freight which is not in total offshore assembly cost.

** Material as a percent of comparative cost.

*** Juarez omitted from the average.

3. Costs of Producing Automotive Flashers

Automotive flashers are typical of high volume light, non-bulky components produced for the automotive market. They are presently produced in Taiwan, Mexico, and the United States. They previously were successfully and economically produced in Haiti, but when the U.S. parent sold the automotive products division the buyer consolidated the Haitian flasher production with their other manufacturing units elsewhere.

While the Caribbean has limited production experience with this product, the cost comparison indicates that a number of Caribbean nations could produce it at competitive rates. (See Exhibit B5 in the Appendix.)

Unlike apparel products, automotive flashers are eligible under GSF for all the countries under consideration except Mexico and Taiwan.

TABLE 3: SUMMARY UNIT COST COMPARISON FOR AUTOMOTIVE FLASHER UNITS (US \$/thousand units including duty)

COSTA					JUAREZ	
<u>RICA</u>	<u>HAITI</u>	<u>BARBADOS</u>	<u>PANAMA</u>	<u>HONDURAS</u>	<u>MEXICO</u>	<u>TAIWAN</u>
\$231.3	\$224.5	\$255.5	\$255.6	\$241.4	\$236.9	\$257.5

a. Caribbean Basin Countries

Haiti and Costa Rica have the ability to produce automotive flashers for the lowest cost among all of the countries examined (See Table 3). Even the highest cost producers in the Caribbean had lower unit costs than the Far East. This cost advantage indicates substantial unexploited opportunities. Across the Caribbean the production cost differential was only 13 percent. Once again, Barbados and Panama are the most expensive locations for production due to high wage rates and shipping costs. If these two countries are excluded from the comparisons, the costs in the other three CBC countries are but 7 percent apart.

The CBC's advantage is in their low direct labor costs which are especially evident in Haiti. (See Table 4). Although automotive components are not as labor sensitive as apparel products, direct labor costs do have a significant impact on total costs.

In the CBC's the cost of labor varies 280 percent from a low of \$.005 per unit in Haiti to a high of \$.019 per unit in Barbados. (See Table 4). Although other variable costs offset this advantage somewhat, labor is a significant cost advantage in the Caribbean over both Mexico and Taiwan as shown on the Summary Cost Comparison.

TABLE 4: SUMMARY OF DIRECT LABOR COSTS
FLASHER UNIT
TSUS 685.90

In thousands of U.S. \$
13,579 units per year

<u>COSTA</u> <u>RICA</u>	<u>HAITI</u>	<u>BARBADOS</u>	<u>PANAMA</u>	<u>HON-</u> <u>DURAS</u>	<u>JUAREZ</u> <u>MEXICO</u>	<u>TAIWAN</u>
114.6	66.5	255.8	223.6	161.8	133.0	214.8

b. Mexico

Mexico is a major supplier of automotive components to the U.S. under TSUS items 806/807. The common border with the U.S. and the access to the U.S. markets are distinct advantages over the Orient and Taiwan in particular, but lose significance in comparison with the CBC's. Only heavier products that can take advantage of truck freight rates have any major advantage over the Caribbean.

The continuing devaluation of the Mexican peso has kept direct labor costs competitive when compared with either Taiwan or many of the Caribbean Basin Countries. Costa Rica and Haiti, however, have lower labor costs for assembling the flashers. The result is that total costs in Mexico are approximately 5 percent higher than Haiti and 2 percent higher than Costa Rica.

Our surveys revealed that the major reason for the production of flashers in Mexico is proximity to the United States market and the availability of a skilled labor force. The product design and construction require rigid testing techniques, and in particular easy access by U.S. supervisory personnel. This quality control is readily available in Mexico and the Caribbean but is more difficult to control in the Far East.

Flashers produced in Mexico are \$21 per thousand less costly than those produced in Taiwan.

Were Mexico to be granted GSP exemption the \$.237 cost per unit would be reduced to \$.234, an insignificant change since material costs under 807.0 are already exempt from the 7% duty.

c. Taiwan

Taiwan exports a high volume of low priced automotive flashers to the United States automotive aftermarket, (i.e. the replacement parts market) but due to quality problems does not qualify for the original equipment market. Taiwan's costs would not be competitive with Mexico and CBC's if Taiwan's product met U.S. requirements for Original Equipment Manufacturers (OEM).

It should be noted that constant material costs are used in all locations. Actual material costs are known to be lower in Taiwan but the Taiwanese materials do not meet U.S. Department of Transportation standards required for Original Equipment Manufacturers (OEM) certification. Therefore, the study assumed that if the materials were to be upgraded to U.S. quality standards, the costs would increase accordingly.

In addition to the issue of material costs, many other cost items in Taiwan contribute to the high total, namely direct labor costs which are 223 percent higher than Haiti; overhead costs 71 percent higher and duty 619 percent higher than Haiti. Because of travel, costs per trip are 526 percent higher than Haiti. This comparison highlights the advantage of producing automotive flashers in the CBC's or Mexico under the protection of the high duty from Taiwan. Were the Taiwan duty removed under GSP the unit costs would be \$.241 and would be competitive with Barbados, Honduras and Panama, but would still be 7 percent higher than Haiti's costs, 4 percent higher than Costa Rica and 2 percent higher than Mexico.

TABLE 5

AUTOMOTIVE FLASHERS
PERCENT OF TOTAL OFFSHORE ASSEMBLY COST

	Costa Rica	Haiti	Ecuador	Panama	Hond.	CBC Avg.	Taiwan	Mexico Juarez
Direct Labor	22%	15%	30%	27%	24%	24%	28%	21%
Factory Over'd.	49	56	51	52	52	52	56	55
General & Adm.	17	19	13	12	14	15	10	17
Freight*	16	13	7	10	12	11	9	7
Duty	7	7	7	7	7	7	29	7
Material **	71	73	64	64	68	69	64	69

* Totals will not equal 100% because of rounding and the inclusion of onshore freight which is not in total offshore assembly cost.

** Material as a percent of comparative cost.

4. Costs of Producing Specialty Power Supplies

The assembly of electronic components occurs now in many locations throughout the Caribbean, however, at a higher cost than in the Far East. In a number of cases costs in the Caribbean could become lower than those in the Far East if cheaper sourcing options were pursued. (See Exhibit B3 in the Appendix.)

TABLE 6: SUMMARY UNIT COST COMPARISON
SPECIALTY POWER SUPPLY
TSUS 685.90 (US \$ duty paid)

<u>COSTA</u> <u>RICA</u>	<u>HAITI</u>	<u>DOM.</u> <u>REP.</u>	<u>BARBADOS</u>	<u>HONDURAS</u>	<u>(JUAREZ)</u> <u>MEXICO</u>	<u>MALAYSIA</u>
\$16.22	\$15.88	\$16.83	\$18.97	\$17.12	\$17.66	\$15.26

a. Caribbean Basin Countries

Costa Rica and Haiti have the lowest labor costs of all countries examined, including Malaysia, however, because of the use of cheaper sourcing options for some components, the lowest total cost is in Malaysia. (See Table 6).

In all Caribbean Basin Countries, the power supply PCB's use US components and thus qualify for 807 duty exemptions. In the absence of GSP, the use of US components qualifying for 807 duty exemptions gives Haiti a cost only 4 percent

higher than Malaysia, which would obtain no duty exemption on its foreign source components. When GSP applies, and no duties are charged, Haitian costs are 9 percent above those of Malaysia.

The freight rates for electric components in the Caribbean are more uniform than are those for textiles and apparel, but they have a minimal effect on the total cost.

Barbados is the only CBC producing power supplies with a higher unit cost than Mexico. All of the other Caribbean countries are lower than Mexico (although higher cost than Malaysia).

In all CBC's the U.S. preassembly costs are constant since all countries utilize U.S. components and preassembly is done in the U.S. A company looking to expand production in the Caribbean could reduce costs by \$1.49 per unit if the preassembly costs were to equal those in the Orient. Were this to be done, Haiti would become the lowest cost country.

Although material is the highest single element of cost under GSP there is no advantage in using U.S. components since all products of TSUS 685.90 are admitted to the U.S. Duty Free. If foreign components at the Malaysian cost were used in the CBC's, there would be an additional \$1.60

per unit reduction in total cost. All CBC's then, except Barbados, would have lower costs than Malaysia.

b. Mexico

Specialty Power Supplies produced in Mexico are not cost competitive with Malaysia or most of the CBC's. Only Barbados has higher costs in the Caribbean.

Mexico is excluded from GSP for products classified in TSUS 685.90. All other countries analyzed qualify for duty exemption, and although the duty does not have a major impact on costs, it does widen the gap between Mexican costs and all other countries.

Freight costs are lower in Mexico than in any other country location, because, power supplies are trucked to and from the Mexican location.

Material is the largest single element of cost, and since Mexico is excluded from GSP, the duty exemption of \$.33 per unit under TSUS 807 becomes essential for maintaining Mexico's total cost of \$17.66 per unit which is already high by comparison to the other countries.

Mexican labor rates are not competitive with Malaysia, Costa Rica, or Haiti but are lower than the other CBC's. Because of the relatively higher labor rates, which are dutiable, the total costs are compounded by this effect. Only in Barbados is the duty higher than Mexico when compared to the other 807.0 producers.

c. Malaysia

Malaysia has the lowest production cost for specialty power supplies. The major reason is the availability of low price components in Malaysia and other Far East countries. As a result, preassembly and material costs are 200 percent lower in Malaysia than the CBC's and Mexico.

Were Malaysian products not GSP exempt, material would also be dutiable and the duty costs would be an appreciable part of the total cost.

The direct labor cost in Malaysia is double that in Haiti and 12 percent higher than Costa Rica as shown in Exhibit B3 in the Appendix. Malaysian direct labor cost, however is lower than all of the other three CBC's and Mexico.

The overhead cost is lower in Malaysia than in any other location analyzed in the Caribbean as are the material costs for reasons noted. These factors are partially offset by travel and technical assistance and high duty costs, but since Malaysia is a beneficiary under GSP, the duty cost is not now a penalty. Even if CSP were withdrawn, Malaysia would still have the lowest production cost providing the cost reductions previously mentioned were not effected in the Caribbean.

The other significantly higher cost is freight. Even though offshore freight costs were omitted because it was assumed the components and raw materials would be locally supplied and freight built into their cost, the onshore freight alone is 147 percent higher than the average combined onshore and offshore freight from all other locations.

The emergence of Malaysia as the lowest cost producer of electrical components is not surprising when the long history of success with these products is considered. The Caribbean Basin Countries, however, could become cost competitive if preassembly costs and material costs were reduced, since these are the two elements of cost most significantly favoring Malaysia.

TABLE 7

SPECIALTY POWER SUPPLY
PERCENT OF TOTAL OFFSHORE ASSEMBLY COST

	***							CBC Avg.	
	Costa Rica	Haiti	Dom. Rep.	Mexico Juarez	Ebdos.	Hond.	*	Malay.	
Direct labor	20%	12%	26%	20%	29%	26%	23%	21%	
Overhead	59	65	54	63	56	56	58	54	
Freight*	8	7	6	4	4	8	6	17	
Duty	7	7	7	7	7	7	7	22	
Material**	59	61	57	55	51	56	57	53	

** Percent of total comparative cost.

*** Juarez omitted from the average.

Totals will not equal 100% because of rounding and the inclusion of onshore freight which is not in total offshore assembly cost.

C. COMPARISON OF OTHER PRODUCTION FACTORS

1. The Investment Decision Grid

The Investors Decision Grid is a technique developed at PSI to produce a quantitative valuation factor from a series of qualitative judgements. The purpose of this Grid is to develop a single cost factor, or adjusted cost factor, which numerically compares the total costs to the potential investors.

This reassessment of unit cost in light of qualitative judgements is a vital step in setting up an overseas production operation. The costs of production do not account for unpredictable costs incurred in a manufacturing operation such as schedule delays or power outages that materially inflate costs in an offshore location, but are not calculated in the economic costs of production. The Investment Decision Grid corrects this deficiency by assigning weights to a series of investment criteria. These weights have been determined by the survey results and past experiences of the team members. Each country is then assigned ranking on each of the criteria. These rankings are then discounted by the weights assigned to the criteria and then summed to produce the valuation factor which ranges from zero to one. The unit cost in each country is then divided by the valuation factor to produce an adjusted unit cost.

The investment criteria considered in determining this adjusted cost factor include:

- o Stability of the Investment Climate
- o Labor
- o Transportation
- o Infrastructure
- o Government Policies
- o Access to United States Market
- o Quality of Life

2. The Adjusted Cost Factor

In accord with the methodology outlined above, each country has been assigned an adjusted cost factor. This table has been compiled based on the interview with manufacturers engaged in production sharing operations, but is used only for comparative purposes.

The Summary of Adjusted Costs illustrates the application of the investment adjustment factor to modify costs but only for comparative purposes.

Rankings of the countries by product, based upon actual total costs, show the following comparison of lowest cost countries producing the three products.

<u>Dress Shirts</u>	<u>Auto Flashers</u>	<u>Power Supply</u>
Philippines	Haiti	Malaysia
Haiti	Costa Rica	Haiti
Costa Rica	Mexico	Costa Rica
Mexico	Honduras	Dominican Republic
Dominican Republic	Panama-Barbados	Honduras
Jamaica-Honduras	Taiwan	Mexico
Panama		Barbados
Barbados		

Based on these total costs, the Philippines would be the preferred location for dress shirts, Haiti for auto flashers and Malaysia for power supplies. However, when the adjustment factor is applied to these costs, the following locations are preferred:

<u>Dress Shirts</u>	<u>Auto Flashers</u>	<u>Power Supply</u>
Costa Rica	Costa Rica	Malaysia
Mexico	Mexico	Costa Rica
Haiti	Taiwan	Haiti-Barbados-
Barbados	Barbados	Mexico
Dominican Republic	Haiti	Dominican Republic
Philippines	Panama	Honduras
Jamaica	Honduras	
Panama		
Honduras		

For dress shirts, Costa Rica emerges as the lowest cost location rather than the Philippines. The major reason for this change is the recent political instability and civil strife in the Philippines as well as labor unrest. Limited access to the United States market is also a key factor why the cost of production in the Philippines has risen. The generally stable investment climate in Barbados and productivity of labor explains why doing business in this country is less expensive.

For automotive flashers, Costa Rica is again the lowest cost location. The cost of producing in Haiti, the preferred location without the adjustment factor, now has substantially higher cost due to economic instability, poor labor stability, the limited availability of skilled labor, middle management and technicians. Conversely, the cost of doing business in Taiwan is now less expensive due to the good investment climate and availability of technicians and business support services.

Malaysia remains the least expensive location for manufacturing specialty power supplies after the adjustment factor has been calculated. The major reason for the country's excellent rating for this product is the stable investment climate, high labor skills, good infrastructure and support services and the available pool of middle management and technicians.

In sum, after all costs have been adjusted, the CBCs emerge as lower cost producers than the Far East for all products except the specialty power supply. This result implies that the Caribbean countries have advantages which are not obvious after a cost analysis only. However, these advantages exist and should be utilized to attract foreign, as well as domestic investment.

TABLE 8

A.I.D. MISSION PROJECT
COMPETITIVE ANALYSIS
INVESTMENT EVALUATION GRID

	C. KICA		PANAMA		HAITI		DOM. REP.		JAMAICA		BARBADOS		MEXICO (JUAREZ)		NON-DURAS		MALAYSIA		PHILIPP.		TAIWAN		
	W	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
POLITICAL STABILITY	8	8	64	7	56	7	56	8	64	6	48	9	72	8	64	7	56	6	64	4	32	8	64
CIVIL & SOCIAL STAB.	6	9	54	5	30	7	42	8	48	6	36	9	54	7	42	6	36	7	42	3	18	9	54
ECONOMIC STABILITY	6	4	24	8	48	6	36	6	36	4	24	8	48	6	36	4	24	8	48	4	24	9	54
LABOR AVAILABILITY	8	8	64	7	56	10	80	8	64	8	64	7	56	6	48	8	64	9	72	9	72	7	56
LABOR & UNION STAB.	4	8	32	7	28	6	24	7	28	7	28	7	28	7	28	6	24	8	32	5	20	7	28
WORK ETHIC & PRODUCT.	6	8	48	5	30	6	36	8	48	6	36	7	42	8	48	6	36	9	54	8	48	8	48
TECH. SKILLS & MISC. MANAGEMENT	2	8	16	6	12	2	4	5	10	5	10	7	14	8	16	5	10	8	16	7	14	9	18
TRANSPORTATION																							
RELIABILITY	4	8	32	8	32	8	32	7	28	8	32	7	28	9	36	6	24	8	32	7	28	8	32
QUALITY OF INFRASTRUCTURE	2	8	16	7	14	5	10	7	14	7	14	8	16	9	18	7	14	8	16	6	12	9	18
SEAPORT/AIRPORT FACIL.	4	7	28	9	36	7	28	7	28	9	36	8	32	9	36	7	28	9	36	8	32	9	36
SERVICES RELIABILITY	2	8	16	7	14	5	10	6	12	6	12	8	16	8	16	5	10	8	16	6	12	8	16
TECH. BUSINESS SUPPORT	2	6	12	5	10	1	2	3	6	5	10	7	14	8	16	3	6	8	16	8	16	9	18
INVESTMENT INCENTIVES REGULATIONS	1	4	4	3	3	3	3	3	3	4	4	5	5	5	5	4	4	4	4	6	6	4	4
ACCESS TO MARKETS	4	8	32	8	32	7	28	7	28	8	32	6	24	8	32	6	24	7	28	5	20	5	20
QUALITY OF LIFE	1	9	9	5	5	5	5	7	7	8	8	9	9	7	7	4	4	7	7	7	7	8	8
TOTAL	62		463		420		408		436		408		474		459		374		499		371		486
FACTOR 1			7.47		6.77		6.58		7.03		6.58		7.65		7.40		6.03		8.05		5.98		7.84
FACTOR 2			75		68		66		70		66		76		74		60		81		60		78

Where W = weighting factor
R = individual country rating

TABLE 9

A.I.D. MISSION PROJECT
SUMMARY OF ADJUSTED COST
UNIT COST COMPARISON
MEN'S DRESS SHIRT

	COSTA RICA	HAITI	DOM. REP.	JAMAICA	MEXICO JUAREZ	BAR- BADOS	PANAMA	HON- DURAS	PHIL- IPPINES
Unit Cost Before Adjustment	\$54.25	\$51.76	\$55.50	\$56.92	\$54.40	\$60.20	\$59.45	\$56.93	\$51.43
Adjustment factor from investment Decision Grid	75	66	70	66	74	76	68	60	60
Adjusted unit Cost	\$72	\$78	\$79	\$86	\$74	\$79	\$87	\$95	\$86

TABLE 10

A.I.D. MISSION PROJECT
SUMMARY OF ADJUSTED COST
UNIT COST COMPARISON
AUTO FLASHERS*

	COSTA RICA	HAITI	MEXICO JUAREZ	BAR- BADOS	PANAMA	HON- DURAS	TAIWAN
Unit Cost Before Adjustment	\$228.6	\$222.2	\$236.9	\$251.3	\$251.4	\$230.1	\$257.5
Adjustment factor from investment Decision Grid	75	66	74	76	68	60	78
Adjusted unit Cost	\$305	\$337	\$320	\$331	\$370	\$397	\$330

* Costs shown with G.S.P. except for Juarez and Taiwan for which costs are shown without G.S.P.

TABLE 11

A.I.D. MISSION PROJECT
SUMMARY OF ADJUSTED COST
UNIT COST COMPARISON
POWER SUPPLY*

	COSTA RICA	HAITI	DOM. REP.	MEXICO JUAREZ	BAR- BADOS	HON- DURAS	MALAYS.
Unit Cost Before Adjustment	\$15.94	\$15.61	\$16.50	\$17.66	\$18.51	\$16.78	\$14.29
Adjustment factor from investment Decision Grid	75	66	70	74	76	60	81
Adjusted unit Cost	\$21	\$24	\$24	\$24	\$24	\$28	\$18

*Costs shown with G.S.P. except for Juarez for which costs are shown without G.S.P.

3. Summary of Macro-Economic Analysis - Countries

The evaluation of production factors other than costs must also include an understanding of the economies of the countries involved. They have an impact on the cost of living, availability of credit value of a country's currency, cost of loans and other economic factors.

The following macro-economic analyses summarize the key areas for each country in this study.

The macro analyses define country by country conditions in more detail than was possible in the Investment Decision Grid. They include some of the intangibles developed from many input sources. These include interviews in the countries, researchers previous experiences in the country, company data from FZA and PSI files and other published public data. US government agencies, banking institutions and other service companies doing business in the countries were also sources of information.

The following country by country Macro-Economic analyses are summarized from the more complete texts found in Appendix Exhibits A1 - A12.

a. BARBADOS

THE SETTING

Manufacturing and the Barbadian Economy

The Eastern Caribbean nation of Barbados generally enjoys one of the most dynamic and best managed economies in the region. However, because of the island's size and population of 259,000 the health of its economy depends upon the external demand for its goods. The manufacturing sector plays an important role in the growth and diversification of the Barbados economy and is second only to tourism in the government's development priorities.

Major Policy Instruments

Since independence in 1966, successive governments (GOB) have encouraged export-led industrialization for diversification of the traditionally sugar based economy. In line with the importance that the GOB has placed on maintaining an open, free-market economy that encourages foreign investment, a number of laws have been passed in the last 18 years that seek to attract and reassure investors.

The basis for this program was laid with the Industrial Incentives Act of 1963 which enacted tax and import-duty concessions for the manufacturing sector. The policy was further clarified in 1969 by the Industrial Development Act which granted tax exemptions and duty concessions for companies engaged solely in manufacturing for export. The major policy tools used to encourage export-led industrialization were enhanced by the creation of the Barbados Industrial Development Corporation (BIDC) in 1965. The BIDC is a parastatal institution mandated to promote and manage the growth of the manufacturing sector.

Although sugar remains the mainstay of the island's economy, its relative importance is continuing to decline as the government continues to pursue a consistent policy of diversification.

COMPETITIVE POSITION OF BARBADOS FOR PRODUCING UNDER SECTION 806.3 and 807

For the first time, Barbados is encountering stiffer competition in the region from countries that may not offer the same standard of living and quality of labor, but have more competitive wage structures. As result, large MNC's willing and

able to assume a higher risk element in investment decisions and subcontracting arrangements may prefer to invest in less stable, lower cost centers such as Haiti. Based on historical trends, Barbados' comparative advantage lies in attracting smaller firms which desire a strong element of control in manufacturing operations in a low risk environment.

INVESTMENT CONDITIONS

Basic Economic Factors of Production

Land and Buildings

Since 1965, the Barbados Industrial Development Corporation has overseen the construction of over 1 million sq. feet of factory space in 9 industrial parks spread throughout the 431 km. island. The parks are owned, operated and maintained by the BIDC which is financed primarily by the government but also receives income from factory rentals and from credits extended by international credit institution such as the Caribbean Development Bank (CDB). The Parks are somewhat unique because the BIDC has been successful in attracting a mix of enterprises that complement each other well.

Capital

The government does not require joint ventures in the manufacturing sector. And because of the size of the economy, there is insufficient local capital available for major investment in manufacturing. However, foreign investors may apply for loans from the Barbados Development Bank (BDB), which has authorized capital of US \$15 million to be lent out to investors who meet certain criteria such as employment generation. As of July 1983, another option is available to investors. An US \$17.5 million Industrial Credit Fund is available for medium and long term manufacturing projects. The Fund is based on a multilateral credit line and is being administered by commercial banks on Barbados. The money from the line of credit is lent at 2% below prime.

Labor

While on the average, wages are higher than in neighboring countries, the quality of worker productivity, trainability and literacy is far higher. Barbadian workers speak English and most have an average of twelve years of education. As such, an adequate number of low to middle level managers are locally available.

There is one major union on the island, the Barbados Workers Union (BWU). While the BWU has been an enormously political union, it has traditionally concentrated its efforts on the public sector and have rarely caused obstructions in the private sector.

Unionization of enclave industries is not mandatory but labor-employer relations are usually regulated by voluntary collective bargaining and relations between the union and foreign investors is generally good.

The B IDC makes training grants available to approved manufacturers in the process of training workers. The B IDC will pay a percentage of the employees wages for a period of less than 3 months. For firms employing up to 50 workers, the B IDC will pay 25% of wages, for 50-100; 33-1/3%, and for firms employing over 200 workers, 50%. In addition, the B IDC will also subsidize wages for short periods when Barbadian employees are engaged in further upgrading their job skills.

Fuel/Freight

The services infrastructure on Barbados is normally reliable although occasional disruptions in electrical service can occur. The government has placed a great deal of emphasis on maintaining port and airport facilities because of the importance of tourism to the economy. Although there have been complaints by manufacturers that export bottlenecks can occur, the GOB has sought to rectify the problem by entering into a joint venture air cargo arrangement with Trinidad and Tobago (CARICARGO). Shipping facilities are exemplary for the region.

Access to Markets

The United States is Barbados' major trading partner and benefits from Most Favoured Nation (MFN) status. Barbados has not suffered from the application of quotas on its manufactured exports. Further, Barbados is eligible under the Reagan Administration's Caribbean Basin Initiative and will enjoy the trade provisions of the CBI.

b. COSTA RICA

THE SETTING

Manufacturing and the Costa Rican Economy

Costa Rica has traditionally enjoyed one of the most stable and prosperous economies in a region beset by enormous political and economic difficulties. However, during the 1980's, the economy of Costa Rica has experienced a severe decline. Although agriculture remains central to the country's economy, manufacturing is the largest productive sector, accounting for roughly 20% of gross domestic product. The industrial sector as a whole provided 35% of total exports in 1982 as compared to 3% in 1962.

Major Policy Instruments

The Export Promotion Law of 1972 provides for total exemption of all import duties and tariffs on the importation of material needed to set up a manufacturing process and all subsequent inputs. Further, the law provides for exemption of export, sales and withholding tax and partial to total exemption on local income and dividend taxes. The Law of the Free Export Processing Zones, passed by Congress in 1979, offers additional incentives to the investor, provided that he locates in either Costa Rica's existing or planned export processing zone (EPZ). For the EPZ investor, there is a ten-year tax holiday.

Major Growth Sectors

In recent years, the major growth sectors of the Costa Rican economy have been light-manufacturing and assembly of apparel, footwear and textiles, and tourism. With the imposition of quotas on Costa Rican brassiere exports, subcontractors for U.S. companies began concentrating on other apparel products, such as dress shirts for both men and women, jeans and other knit and woven products. The manufacturers of electronics components such as GTE, Sylvania, Hitachi and Motorola has begun a growth trend which, while less than dynamic, is encouraging for the future.

The Role of 806/807 Industries in the Economy

The fastest growing industries in the manufacturing sector have been the predominantly foreign-owned assembly operations producing under Section 807 of the U.S. Tariff Schedule. Between 1978 and 1980, 806/807 production in Costa Rica grew at 12% annually and accounted for approximately 5% of total exports from the country. Apparel, textiles and footwear accounted for 88% of all 806/807 exports in 1981.

Costa Rica has also developed a group of local industrialists capable of producing goods for export. The majority of 806/807 exports come from the 54 local firms producing as subcontractors for United States manufacturers. At present, there are only six wholly-owned U.S. firms producing non-traditional manufactured exports in the country.

The political stability of the country has also helped to woo investors away from operating in the neighboring countries. Also, the availability and quality of subcontractors has attracted major investors to the country. Their 807 operations are a direct attempt to meet the competition from pure Far East imports.

However, governmental and bureaucratic delays, the occasional lack of foreign exchange and the difficulties that the Monge Administration is undergoing in its attempts to harness spending and inflation under an International Monetary Fund regime, are disincentives for a number of investors. The possibility that more quotas may be imposed on Costa Rican light manufacturing exports serves as a further disincentive, although it is offset somewhat by the importance that the Reagan Administration places on maintaining stable political and economic conditions in Costa Rica.

INVESTMENT CONDITIONS

Basic Economic Factors of Production

Land and Buildings

Although most foreign investors engaged in manufacturing are located in or nearby the capital city of San Jose, the government is making an effort to attract manufacturers to two EPZ's, one being constructed near the Port of Limon on the Caribbean and at Santa Rosa, and a second planned near the Ports of Puntarenas and Caldera on the Pacific Coast.

Capital

As a result of a continuous stream of devaluations of the colon throughout the early 1980's, there is little local investable capital available. Nevertheless, much of the manufacturing activity in Costa Rica is carried out by local subcontractors for U.S. companies which creates desperately needed foreign exchange. The devalued colon has helped to restore competitive costs to Costa Rica when compared to her neighbors in the Caribbean.

Labor

Costa Rica has extremely competitive labor costs and a literate, productive workforce. Average worker earnings are \$0.78 an hour, including benefits, and average worker productivity is one of the highest in the region. Further, because of high literacy levels in the country, there is an adequate supply of middle and low level management.

Fuel/Freight

The services infrastructure in Costa Rica is normally reliable, although disruption in electrical services occur frequently. Costa Rica has the only industrial corridor of well-maintained highways and rail lines linking the Caribbean and Pacific coasts in Central America. Port Caldera on the Pacific Coast and Port Limon on the Caribbean Coast are both roll on roll off ports in adequate condition. Air Freight facilities and frequency of service are sufficient for most manufacturing operations. The telephone system is quite modern and excellently maintained with electronic switch gear and direct dialing to the U.S. Power costs are the lowest in the Caribbean.

Tax and Regulatory Conditions

Taxes

For foreign investors engaged in manufacturing for export outside of the CACM and who are willing to locate in the EPZ's, exemptions are given on all taxes on capital and assets for a period of ten years. Further, total exemptions are offered on all sales on consumer taxes on all remittances from abroad. On profits, there is also a ten-year tax holiday.

Stability of Investment Climate

Unlike other Central American countries, Costa Rica offers stable investment environment backed up by guarantees from a constitutionally elected government. The prognosis for political stability remains good due to the well-educated population, adherence to democratic principles and lack of military institutions. However, if regional instability continues and the regional economy continues to be distorted due to both hostilities and large influxes of aid, there is a potential for problems in the country.

Access to Markets

The United States and other Central American countries are Costa Rica's main trading partners. Under the Generalized System of Preferences (GSP), Costa Rica has most favored nation status with the United States. In addition, in mid-1983, the U.S. and Costa Rica signed a bilateral trade treaty which is extremely favorable to the Costa Ricans. The only quota ceiling that Costa Rica may be nearing in its exports of goods to the U.S. is in its export of brassieres. Finally, the passage of the Caribbean Basin Initiative (CBI), of which Costa Rica is a major beneficiary, will further provide access for Costa Rican manufactured goods in the United States. The country is also a member of the Central American Common Market (CACM).

C. THE DOMINICAN REPUBLIC

THE SETTING

Manufacturing and the Dominican Republic Economy

The Dominican Republic has established a favorable climate for direct foreign investment. This is reflected in the high rate of economic growth. Gross Domestic Product increased at an average annual growth rate of four percent from 1978-1981. Per capita income, expressed in U.S. dollars, has more than doubled in the period from 1970-1980. (1)

Major Policy Instruments

Law 299 gives enterprises a complete tax exemption on corporate income tax and import and export duties if production is exclusively for export.

The majority of firms registering under Law 299 have indicated that the incentive system still strongly favors import substitution policies.

Major Growth Sectors

Primary commodities will continue to be the mainstay of the economy for the foreseeable future, but are severely constrained by world market demand. Non-traditional manufactured goods are the dominant growth sector in the economy, but will not provide the basis for growth which was enjoyed in the 1970's.

The Role of 806/807 Industries in the Economy

Industries producing under TSUS 806/807 play a significant role in the manufacturing sector of the Dominican Republic, accounting for an average of nine percent of total manufactured exports from 1980-1982. Wearing apparel and footwear comprise approximately 90% of these exports, specifically brassieres, trousers and men's and boys' shirts. Almost 100% of the raw materials are supplied by the United States, with labor payments accounting for the majority of the value-added in the country.

(1) Economic and Social Progress in Latin America, The Inter-American Development Bank, 1982.

Electrical and electronic components, such as electronic connectors, transducers, potentiometers, auto relays and capacitors account for the other ten percent of 806/807 exports. However, the electronic industry has not been a stable growth industry in the Dominican Republic.

COMPETITIVE POSITION OF THE DOMINICAN REPUBLIC FOR PRODUCTION SHARING MANUFACTURING - TSUS 806.30 and 807

A number of factors lessen the attractiveness of Dominican Republic investment. A higher cost of production due to the exchange rate regulations, inconsistency in Customs administration and poor electricity and telephone service. However, despite these negative conditions, the Dominican Republic is the second largest 806/807 exporter of the Caribbean Basin Initiative designees.

Historically, the Dominican Republic has been capable of attracting 806/807 industries. Gulf & Western Industries, a major harvester and producer of sugar commodities in the country, established an export processing zone there and presently owns and operates the facility.

INVESTMENT CONDITIONS

Basic Economic Factors of Production

Land and Buildings

There are four export processing zones located in the Dominican Republic which host all of the 806/807 manufacturing operations. The EPZ's are located throughout the island at La Romana, San Pedro de Macoris, Puerto Plata and Santiago.

Capital

The major obstacle faced by 806/807 firms in the Dominican Republic is the higher costs of production due to the fact that all local cost must be paid in U.S. dollars exchanged at par with the Central Bank. (The par rate is U.S. \$1 = DR 1.) This official rate is overvalued by approximately 50% as indicated by the parallel rate (DR1 = U.S. \$1.50 = \$1.85).

Labor

The cost of labor in the Dominican Republic is competitive with the Caribbean region and the productivity of the workforce is excellent.

Labor problems in the Dominican Republic's export processing zones are non-existent because of government prohibition of labor union formation.

Production Sharing International, Ltd.

The Dominican Republic benefits from its Most Favored Nation (MFN) status with the United States and is a member of CARICOM. The United States is the island's major trading partner, particularly in manufactured goods. However, the country is beginning to suffer from the imposition of quotas in apparel products, particularly cotton nightwear, brassieres and men's and boys' shirts. These quotas have decreased the opportunities for growth of existing industries and may affect future foreign investment.

d. HAITI

THE SETTING

Manufacturing and the Haitian Economy

Between 1970 and 1977, industrial growth averaged 7 percent annually, as compared to a 0.6 percent yearly average in the 1960's. The manufacturing sector reflects the limited market potential of an economy at the early stages of development.

The majority of export-oriented manufacturing firms in Haiti are locally-owned subcontractors producing goods in conjunction with U.S. transnationals. From scarcely 6 percent in 1969, non-traditional exports have risen to 50 percent in 1982. Exports of finished goods assembled from components imported from the U.S. doubled from \$84.6 million in 1976 to \$179.9 million in 1982.

Major Policy Instruments

Because of the domestic market's limited potential (per capita income in 1982 was U.S. \$300), the Haitian government has never pursued a serious policy of import substitution. 1963 legislation provided customs and duties exemptions for "enclave industries", and since that time, the Haitian government has continuously added more incentives aimed at attracting export-oriented industries.

In 1979, the government created a free trade zone between the capital and the airport and offered eight-year tax exonerations for any company willing to invest there.

Major Growth Sectors

In recent years, the export-oriented light manufacturing industries and the construction goods industry have been the most dynamic sectors of the economy. Industrial activity in the assembly industries has created 40,000 to 60,000 jobs during the last decade. Despite the presence of quotas for clothing and sporting goods since the mid-1970's, these two subsectors continue to account for two-thirds of export-processing goods. Electrical and electronic component assembly firms have also located in Haiti in the last five years.

The Role of 806/807 Industries in the Economy

The fastest growing industries in the manufacturing sector have been the predominantly subcontracting assembly operations that fall under TSUS 806/807. Haiti is the largest exporter of these goods in the Caribbean Basin.

Exports of 806/807 goods climbed from \$13.7 million in 1979 to \$179.9 million in 1982.

Over 200 firms are engaged in assembly of light manufacturing operations. The majority are Haitian-owned and provide under subcontract for United States manufacturers. Interviews with U.S. buyers indicate that the quality and delivery time for goods produced by local subcontractors is generally good, particularly in the apparel sector.

COMPETITIVE POSITION OF HAITI FOR PRODUCTION SHARING MANUFACTURING 806.30/807

Haiti has continuously been able to attract 806/807 industries due to two major factors: cost of labor and productivity. Wage rates, including fringe benefits, are 41¢ per hour, the lowest in the Caribbean. Corporate executives claim that productivity is high, labor availability for unskilled work is never a problem and union activity is non-existent. The consistency of legislation regarding foreign investment and the commitment of the Jean Claude Duvalier government to providing a secure environment for foreign investment are also in the country's favor.

INVESTMENT CONDITIONS

Basic Economic Factors of Production

Land and Buildings

The majority of manufacturing operations in Haiti are located in or nearby the capital of Port-au-Prince. In 1972, the government began construction on the Park Industriel Metropolitain in the northeast of the city. Offering rents of \$1.40 per square foot per year, the park has managed to attract 24 investors, but the manufacturing sector continues to locate throughout the capital area.

Labor

Wage rates in Haiti are the lowest in the region, and there is an abundance of unskilled labor. There is also an extreme scarcity of middle management, as well as skilled and specialty trained labor, but as much of the work done in Haiti requires little technical sophistication, most investors do not consider this a drawback. However, on this French speaking island, few workers speak English.

Independent trade unions do not, for all practical purposes, exist in Haiti due to political pressures.

Fuel and Freight

Although Haiti has an overcapacity of electricity on paper, service is unreliable. Because most of the electricity is hydrogenerated, droughts result in blackouts and power rationing. In 1983, most assembly and manufacturing companies were forced to import their own diesel generators to continue operations.

In Port-au-Prince, container facilities and roll on roll off ports exist but are often in poor repair. Currently, port charges are high, although private sector associations are in negotiation with the government to lower rates. Passenger and cargo facilities at the international airport meet present demand, although expanded facilities will be needed if the manufacturing sector continues to expand.

Infrastructure and General Services

Out of 3000 kilometers of roads on the island, some 600 are considered serviceable. In general, the roads are terrible. The telecommunications network is limited and is erratic internally. Although improved, it is still of inconsistent reliability for international calls. Freight services are expensive.

STABILITY OF INVESTMENT CLIMATE

Haiti has long had a stable investment climate as a result of several decades of dictatorial rule by the Duvalier family. The current President-for-Life, Jean Claude Duvalier, has made some efforts to open up the political process through ministerial participation.

Haiti is also the poorest country in the Caribbean and the most impoverished nation in the Western Hemisphere with alarming levels of poverty.

Nevertheless, the Duvalier family continues to maintain an efficient security apparatus and thus far has managed to quell serious opposition. Through a sophisticated patrimonial system, the Duvaliers have consistently strengthened their position and are likely to be in power for the foreseeable future.

ACCESS TO MARKETS

The United States is Haiti's major trading partner and the island benefits from Most Favored Nation status as a U.S. trade partner. In addition, Haiti has bilateral investment treaties with France, West Germany, Canada and the U.S., providing further assurances on the security of foreign investments.

e. HONDURAS

THE SETTING

Manufacturing and the Honduran Economy

After four years of unprecedented real growth averaging over 7.5 percent in the late 1970's, the Honduran economy went into a sharp decline beginning in 1980. The economy is essentially based on agriculture and foreign trade and was greatly affected by the recession in the United States, along with political instability in the region.

The manufacturing sector, the second largest with 15 percent of GDP and employing 13 percent of the work force, has experienced difficulties along with the rest of the economy. Real growth during 1982 was negative, declining 9 percent from 1980.

Major Policy Instruments

The Suazo Administration regards the private sector as one of the principal channels of development. The government's role in industry has been declining and private sector involvement is actively pursued in both import substitution and export-oriented enterprises.

An investment incentive is available to industries located in the free zone of Puerto Cortes. Established in 1976, this free zone was generating employment and foreign exchange in an area outside the existing industrial city of San Pedro Sula. Companies operating in the free zone may import merchandise free of tariffs, customs and related fees without posting a bond. A lengthy tax holiday is also offered to investors.

Major Growth Sectors

The Role of 806/807 Industries in the Economy

Although the 806/807 exports to the United States have increased from 1.2 percent of total exports to 5 percent in 1981, they continue to play a minor role in the economy. The total value of 806/807 exports was US \$22 million in 1981, and production is exclusively limited to wearing apparel.

As of January 1984, there were eight companies producing under TSUS 807: five companies were located in San Pedro Sula and operating under the drawback system, and three enterprises were located in the Puerto Cortes Free Trade Zone. Three companies are owned by Hondurans and operating under subcontract with U.S. manufacturers. Four United States and one Korean company have invested in the Puerto Cortes Zone.

COMPETITIVE POSITION OF HONDURAS FOR PRODUCTION SHARING MANUFACTURING

The main reason for locating production facilities in Honduras is access to the United States market and the competitive cost of production. Quota allocations for women's undergarments, shirts and jeans are extremely scarce in the Caribbean, and no restrictions are placed on exports of those goods from Honduras at the present time.

The investment incentives outlined above are hampered by two factors: regional instability and labor unrest. Although the ongoing political and civil unrest in the border areas of Honduras has not forced 806/807 companies to leave the country, plans for new investment and expansion activity have been curtailed. The well organized and powerful labor union movement has affected productivity and work-stoppages are frequent.

INVESTMENT CONDITIONS

BASIC ECONOMIC FACTORS OF PRODUCTION

Land and Buildings

In the major industrial area of San Pedro Sula, land and building space for medium or large scale assembly operations is not readily available. Three of fourteen Puerto Cortez buildings are currently available and there are fourteen additional lots available with basic services installed for expansion.

Capital

Local credit is generally not available at international commercial rates due to both internal and external factors.

Labor

Honduras has a work force of over 1 million. Although there are shortages of professional and mid-level technicians, the university in San Pedro Sula continues to turn out increasingly larger pools of young, bilingual students.

The union movement in Honduras is possibly the largest and most powerful in Central America. Two hundred unions are presently active on the company level and grouped at the national level. Twenty percent of the total work force, and 40 percent of the urban workers are organized. The unions pose more problems for companies located in the Free Zone, since it is government owned..

In regard to training, the Free Zone pays companies a maximum

of US \$9,000 to train workers in the textile sector. Payments are made on the basis of US \$45/worker for 180 hours, not to exceed 200 workers.

Fuel and Freight

The country's main source of energy is hydroelectric, with backup thermal plants, but the new hydroelectric dam planned for 1986 should supply nearly all the country's needs and decrease dependence on petroleum by 20 percent.

The Honduran port system has been called "the most efficient in Central America". The current system includes ports at Puerto Cortes, Tela, La Ceiba and San Lorenzo, with a new port planned for Castilla by 1985. Both roll-on and roll-off and container services are available and a variety of shipping lines provide service to major U.S. ports, as well as Europe and the Far East. The national airlines, Tan and SAHSA, provide four weekly flights to the U.S. from the country's three international airports in Tegucigalpa, San Pedro Sula and La Ceiba.

Tax and Regulatory Conditions

Taxes

Companies located in the Puerto Cortes Free Zone are exempt from import duties and export controls. An unlimited tax holiday (federal, state, local income, sales and corporate) is also offered. Under the drawback system, there is an exemption of all import taxes on raw materials and semi-finished goods and packaging goods used for final production exported outside Central America.

Regulations

Officially, there are no restrictions on profit repatriation. However, according to interviews with plant managers, investors should expect a time lag due to the critical shortage of foreign exchange in the country. Application and approval processes are streamlined for free zone occupants, but foreign investors using the drawback system should expect long delays.

Stability of Investment Climate

In 1982, Honduras returned to a democratic system of government after a 9 year military rule. However, a poor investment climate due to civil unrest and regional instability still remains. Terrorist incidents in the southern border area continue, but have not caused any clear and present danger to inhabitants and industrialists in the free zone and other major manufacturing cities. In the long term, the investment climate remains poor until regional stability is attained.

Access to Markets

Honduras will benefit substantially from access to the U.S. market under the CBI. The United States is Honduras' major trading partner and the nation benefits from Most Favored Nation Status. Quotas imposed by the United States have not restricted any garment exports and Honduras still represents an avenue for apparel products to enter the U.S. market under TSUS 807.

f. JAMAICA

THE SETTING

Manufacturing and the Jamaican Economy

Between the year of Jamaica's independence, 1962, and 1976, the manufacturing sector grew more rapidly than the rest of the economy. By 1976, manufacturing accounted for 18.5% of gross domestic product, as compared to 11.3% in 1950. Hampered by a perennial lack of spare parts and materials due to a shortage in foreign exchange and an uneasy political environment, sector output has continued to decline through the early 1980's. For 1983-84, the Edward Seaga government estimates growth of 3.7% following a decline of 1% in 1982.

Major Policy Instruments

Since the 1980 election of the conservative Seaga government, Jamaica has sought to encourage the growth of export oriented to a much greater extent than under the previous government. The government has stepped up promotion of Jamaican exports and has entered into an aggressive campaign to woo foreign manufacturers to the island.

Major Growth Sectors

The current government has identified two major growth areas for the expansion and diversification of the Jamaican economy: tourism and export-led manufacturing. Promotional efforts by the Jamaican Tourist Board have already yielded positive results.

Progress has not come as quickly in the manufacturing effort. The existence of a complicated parallel exchange market and a general lack of foreign exchange, as well as the hangover from a reputation of years of political instability, have stymied government efforts. As major devaluation in January 1983 that ended parallel exchange rates and the continuing "deregulation" of the economy bode well for the future ability of Kingston to attract foreign investors, although it is too soon for concrete results.

The Role of 806/807 Industries in the Economy

Because of the relative instability of the Jamaican economy in recent years 806/807 industries have not had a major impact on the economy. While some 150 firms were producing finished garments for export in the late 1960's, wage increases and the overvaluation of the Jamaican dollar left only 30 firms in operation by 1978. Since that time, 806/807 exports have only accounted for a minor share of total Jamaican exports and exports to the United States. In 1981, 806/807 exports accounted for 1.8% of total exports and 5% of exports to the United States.

Production Sharing International, Ltd.

COMPETITIVE POSITION OF JAMAICA FOR PRODUCING UNDER SECTION
806.3 and 807

It has been only recently that the Jamaican government has made a concerted effort to attract the types of industry catalogued under Sections 806 and 807. In the past, severely fluctuating exchange rates, a highly unionized work force and an uncertain political environment have been disincentives for investors in 806/807 operations.

INVESTMENT CONDITIONS

Basic Economic Factors of Production

Land and Buildings

For firms engaged in production for export outside of CARICOM, the government has developed the Kingston Free Zone (KFZ). The Zone commenced operations in 1976 and has available standard factory buildings of 6500 sq. feet. Thus far, about 15 firms are in operation, equally split between light manufacturing industries and warehousing firms. Rents in the KFZ are among the highest in industrial estates in the Caribbean region and no subsidy is offered.

Capital

Investors may apply for loans for the Export Development Fund, which was created by a \$30 million World Bank loan in 1979, although the Fund is primarily intended for locally financed exporters. Further, a credit insurance scheme exists, administered by the Bank of Jamaica's export credit insurance subsidiaries, although the terms are not attractive for the foreign investor.

Labor

The workforce is generally literate, operates at average productivity and is English speaking. However, Jamaica has a long history of trade union activism and as the unions are closely allied with political parties, strikes are common when collective bargaining demands are not met.

The Garment Unit of the Jamaica Industrial Development Corporation offers a training grant to export oriented garment manufacturers. The grant is available for a maximum six month period in instances where a training need is clearly demonstrated. There are no other direct training subsidies offered to potential investors.

Fuel/Freight

The services infrastructure is generally reliable on the island. The government has placed a great deal of emphasis on maintaining ports and airports because of the importance of tourism to the economy. The Port of Kingston which abutts the KFZ is considered to be the best natural harbour in the Caribbean. Jamaica sits astride major sea lines and is serviced by an adequate number of international airlines.

Infrastructure/General Services

Jamaica has an adequate road network and its own satellite ensuring first-class telecommunications. Within the KFZ, utilities are generally very good. Outside of the zone, services are adequate although back up facilities may be recommended in certain areas. Freight and trucking facilities are also good but are occasionally disrupted by union activity.

TAX AND REGULATORY CONDITIONS

Taxes

Investors producing for export outside of Jamaica and CARICOM are granted a ten year income tax holiday. In addition, firms producing for export outside the region are exempt from tax on dividends to shareholders. Jamaica has also entered into double taxation treaties with the US, Canada and the UK. For investors who locate in the KFZ, there is 100% tax holiday on profits in perpetuity.

Regulations

Exporters under the Export Incentives Encouragement Law are exempt from customs duties on imported raw materials, machinery and equipment. For investors located in the KFZ, there are no restrictions on repatriation of capital, no foreign exchange controls and no import licensing required. Further, the KFZ has been given the mandate of handling all administrative relations between the GOJ and the zone investor.

STABILITY OF INVESTMENT CLIMATE

Jamaica has a parliamentary system and elections have been held since independence. Nevertheless, the strong split and power of the country's two main political parties, the Jamaican Labour Party (JLP) and the opposition People's National Party (PNP) has given rise to frequent electoral violence. Labour union activity on the island is high and in the area surrounding the KFZ in Kingston, crime rates are high. However, since the defeat of the PNP government in 1980,

confidence has risen in the stability of the investment climate, and the Seaga government has committed itself strongly to free-market principles.

ACCESS TO MARKETS

The United States is Jamaica's major trading partner and the island nation benefits from Most Favoured Nation (MFN) status as a US trade partner. Jamaica was also the first country declared eligible under the Reagan Administration's Caribbean Basin Initiative and most Jamaican manufactured exports will enjoy the trade provisions of the CBI. The country also enjoys substantial trade with the United Kingdom and as a signatory of the Rome Convention, benefits from duty-free access to the European Community. (EC). However, most of European bound Jamaican exports end up in the UK. Further, Jamaica is a member of CARICOM and is a beneficiary under the Canadian General System of Preferences (GSP).

Quotas imposed by the United States for garment exports from Jamaica have been a major problem for the country. The first bilateral agreement for garment exports was negotiated in 1964, but the present quota assignment is twelve times greater than the country's exports. Further, because garment exports continue to be relatively minor in financial terms, quotas will not be a prohibitive factor in the short term.

g. PANAMA

THE SETTING

Manufacturing and the Panamanian Economy

Manufacturing accounts for only a minor portion of gross domestic product (GDP). Although the manufacturing sector grew by an annual average of 10.5% during the 1960's and 2.7% in the 1970's, manufacturing still only accounted for 10% in 1981. (I. IBRD WORLD DEVELOPMENT REPORT 1983; pps. 150-153.)

Major Policy Instruments

Between 1950 and 1980, the government of Panama followed a classic policy of import substitution, providing liberal incentives and protection from imports.

Thus, in 1970, the government passed Cabinet Decree No. 413, which instituted a set of incentives aimed at attracting manufacturing industries that contribute to export growth. In 1974, the government established the CAT law, which created tax allowance certificates.

The most recent incentives program was enacted in 1979 and is addressed specifically to light assembly industries. This "Maquila" law exempts transformation and assembly industries from taxation and duties of any kind. In addition, the government created the "Investment Council of Panama" in 1982 in an effort to promote foreign investment in the country. In recent years, Panama has moved consistently forward in its bid to provide attractive incentives to labor-intensive, export-oriented manufacturing firms.

Major Growth Sectors

As a result of its strategic geographical location, the growth in the Panamanian economy has been the service sector for 56% of GDP, and by 1981, 69% of GDP was made up of banking, warehousing, transportation, shipping, smuggling, communications and tertiary services. Panama's proximity to both Latin and North America markets, the existence of the Canal Zone and the country's increasingly dynamic and important offshore banking facilities will insure that services provide the primary impetus for Panamanian economic growth for the foreseeable future.

The Role of 806/807 Industries in the Economy

806/807 assembly operations which fall under Section 806/807 have played only a minimal role in the Panamanian

economy. In 1982, 806.30/807 exports from Panama to the United States accounted for less than U.S. \$1 million. The majority of these exports are blue jeans, where final production in Panama has given Hong Kong producers access to the United States market.

COMPETITIVE POSITION OF PANAMA FOR PRODUCTION SHARING MANUFACTURING - 806.3 AND 807

Although the Panamanian government has attempted to attract 806/807 industries since the adoption of the "Maquila" law in 1979, it has had little success. The primary factors constraining the growth of 806/807 industries are the high cost and poor productivity of Panamanian labor. Nevertheless, Panama does offer some advantages over neighboring countries.

There are currently no quotas on Panamanian exports to the United States. The government appears committed to the incentive laws and providing security for investors.

The high cost and poor productivity of labor, two factors that manufacturers often cite as being most important in their locational decision, will continue to inhibit Panama's ability to attract 806/807 industries.

INVESTMENT CONDITIONS

Basic Economic Factors of Production

Land and Buildings

The majority of manufacturing operations in Panama are located near or in the capital city of Panama City. However, since 1948, most foreign-owned manufacturing and transshipment facilities have been located at the Colon Free Zone. Basically, the CFZ is a large warehousing operation.

Capital

The government does not require joint ventures in the manufacturing sector. There is, however, an ample supply of funds in the Panamanian economy. The country's offshore banking provisions were established in 1970, and since that time have attracted considerable amounts of foreign investment.

Labor

On the average, wage rates in Panama are higher than in neighboring countries. In addition, labor productivity is poor and managers have frequently complained of poor attitudes and lack of a work ethic. There is a lack of

skilled labor, particularly in Colon where decades of urban blight have caused most skilled workers to migrate to Panama City.

Fuel and Freight

Although Panama has an abundant supply of hydro-generated electricity, power outages occur on the average of once a week. Therefore, manufacturing operations generally need a stand-by source of electricity.

Although Panama is a key destination of world shipping and has adequate port and cargo facilities at both Balboa, on the Pacific and at Cristobal, on the Atlantic, the costs of shipping to the United States are prohibitively high.

Infrastructure and General Services

Panama has a serviceable road network, particularly in the axis connecting Panama City and Colon, and excellent telecommunication links due to its status as a major offshore banking center. Within the Colon Free Zone, the quality of infrastructure is good, but there is congestion and passage over the isthmus is difficult.

TAXES AND REGULATORY CONDITIONS

Taxes

Due to Panama's liberal tax incentives for investors producing for export, in conjunction with the offshore banking facilities available, the country has been characterized as a tax haven. Under the "Maquila" decree, companies can claim full exemption from income tax for 15 years. A ten percent withholding tax on paid-out dividends remains in effect; however, when no dividends are paid. For "Maquila" industries, no taxes, duties or charges are levied on the importation of materials necessary to the production process, and there is total exoneration on export taxes. Light assembly industries located in the CFZ also enjoy these provisions.

Restrictions

There are basically no restrictions on investors engaged in manufacturing for export. There are no exchange controls in Panama. Profits can easily be expatriated through the offshore banking sector, and there are no requirements on the registration of capital. Foreign investors can participate in any sector of the economy.

STABILITY OF INVESTMENT CLIMATE

Since 1968, Panama has been governed by a de facto military government made up of senior officers of the Guardia Nacional. Conservative in their temperament and generally observant of civil liberties, the GN government has maintained a stable investment environment. Elections are scheduled for 1984 and no major disturbances are anticipated. However, Panama does have an excessively high crime rate and pilferage problems in the urban centers which dampen the investment climate.

ACCESS TO MARKETS

The United States is Panama's single largest trading partner, although substantial amounts of trade take place with other Latin American countries. The isthmus nation benefits from Most Favored Nation (MFN) status and because its exports to the U.S. remain relatively small, there are no quotas on Panamanian goods coming into the U.S. Further, Panama is a prime beneficiary of the recently enacted Caribbean Basin Initiative (CBI). Panama does not have any special access to Latin American or European markets.

h. MEXICO

THE SETTING

Manufacturing and the Mexican Economy

Development of the manufacturing sector in Mexico is under strong import substitution policies. At the beginning of the 1970's, exports of manufactured goods represented only 4% of the gross value of industrial output and exports were mainly concentrated in food products. However, in the early 1970's manufactured exports began to grow at an average annual rate of 8% per annum.(1) A large part of this growth attributable to the maquiladora industries, particularly in U.S. subassembly plants in Mexican border areas.

Major Policy Instruments

The establishment of the "maquila" industries, twin plants or international subcontracting firms in Mexico began in 1965. To provide employment opportunities for the growing number of unemployed, a program to attract American investment for labor intensive manufacturing was initiated with duty free imported components.

Major Growth Sectors

The manufacturing sector (excluding maquiladora industries) which has shown the most activity during the past four years is the engineering industry consisting of metal products, machinery and equipment. Exports of these goods, expressed as a percentage of total manufactured exports, have risen from roughly 11% in 1970 to 28% in 1980.(1) These products are generally not resource based, and the growth of exports reflects the growing technological mastery as well as the relatively inexpensive skilled labor that is available in Mexico.

The Role of 806/807 Industries in the Economy

The maquila industries--the manufacturing activity dominated by 806/807 investors in Mexico--have accounted for an average of 44 percent of all manufactured exports from 1975-1982. In addition, maquiladora industries provide employment for approximately 125,000 workers which represents seven percent of the labor force in the manufacturing sector.

(1) Mexico; Future Directions of Industrial Strategy.
The World Bank, May, 1983

Presently, Mexico is the largest LDC exporter of goods under US Tariff Codes 806.30 and 807. Approximately 35% of all goods manufactured in Mexico entering the United States under these tariff provisions are produced in the border area of Mexico. (2) Production is highly concentrated in electrical and electronic articles and motor vehicle parts. Television components and parts account for 22 percent of total 807 exports: electrical conductors, semiconductors, radio receivers, office machines and internal combustion engines are also major exports. The dutiable value, or percent of U.S. components used in the final product is also very high; approximately 51 percent. Production of garments under Items 806.30 and 807 in Mexico represent only 7 percent of the total exports.

COMPETITIVE POSITION OF MEXICO FOR PRODUCING UNDER 806/807

Proximity to the United States is perhaps the most important reason for Mexico's success in attracting maquila industries. The common border with the U.S. not only allows for reliable and inexpensive transportation by rail, truck and air, but permits far greater control over the production process.

In sum, Mexico enjoys a significant competitive edge over countries in the Caribbean and the Far East in production of items which have a relatively low ratio of value to weight and volume, depend on timely shipment and require close interfacing with the U.S. based company.

INVESTMENT CONDITIONS

Basic Economic Factors

Land and Buildings

Export processing zones are not widely used in Mexico. Rather, the Government of Mexico allows foreign investors to locate facilities anywhere within the country. (Metropolitan areas, such as Mexico City are excluded) However, the overwhelming majority of maquiladora industries are located along the U.S.-Mexican border. Eleven industrial parks have been established in this area, which are privately owned and operated. Many facilities contain custom designed factories.

(2) Imports Under Items 806.30 and 807 of the Tariff Schedule of the United States USTIC Publication 1467. January, 1984

Capital

The availability of short term capital, particularly foreign exchange on the local market is extremely tight. Local capital, though available, has not been a strong impetus of growth for the maquiladora industries. The overwhelming majority of maquila operations are 100% foreign owned and have not relied on funds from the local market.

Labor

The recent devaluation of the peso and the government's wage restraint policy have made Mexican wage rates for unskilled labor very competitive with both the Far East and the Caribbean. Production is extremely high and the work ethic is very strong. Skilled engineers and technicians are available but finding them is sometimes a problem for manufacturers when demand is strong.

Union activity is a potential threat to business activity; conditions strongly vary with each city along the U.S.-Mexican border. In Matamoros, for example, union activity is quite strong and leaders are presently campaigning for a 40 hour, 5 day work week rather than the existing 46 hour work week. This threat has prompted several prospects to locate in other border cities. In general, union activity tends to be economic based rather than tied to politics.

Fuel/Freight

Both fuel and freight services in the border area of Mexico are excellent. Service interruptions have been infrequent and the average amount of down time attributed to service breaks was five hours annually. Very few companies have been forced to install their own standby power generators. Freight services are generally reliable and efficient as most companies use United States trucking lines for shipment.

Infrastructure/General Services

The infrastructure in the immediate area of the industrial parks and plant locations is generally adequate. In the outlying areas, road development and services are generally poor. In some instances, foreign investors have found it necessary to provide transportation for workers. Telephone services are generally substandard and some companies have also found it necessary to provide their own communication links.

Tax and Regulatory Conditions

Taxes

There are no income tax holidays offered to maquiladora industries which have majority foreign ownership. Foreign investors are permitted to import raw materials and intermediary goods used in the production process duty-free, but a bond equal to the amount of the imported goods must be registered.

Regulations

Mexican law imposes a number of regulations on foreign investors. Mexican Law requires that maquiladora industries place five percent of yearly profit in a legal reserve fund. However, transfer pricing and intracorporate sales can potentially decrease the income tax liability by showing minimal profit in the country.

Stability of the Investment Climate

At present, Mexico is experiencing a severe economic and financial crises. External debt stands at US\$80 billion dollars and the country is undergoing severe austerity measures imposed by the International Monetary Fund.

In large part, investors in the maquiladora program are isolated from this economic crises. The program has been operating, without interruption for 17 years and foreign investors are not hampered by import restrictions imposed by the IMF program. Further, the recent devaluations have created a distinctive comparative advantage for Mexico in terms of the total cost of production of 806/807 goods.

Access to Markets

Mexico benefits from Most Favoured Nation (MFN) status, but is not a designated recipient country under the Caribbean Basin Initiative. Exports of garments to the United States have been hampered due to the imposition of quotas. However, automotive parts and electrical machinery, the major 806/807 exports to the United States, have not been adversely affected by protectionist measures and Mexico's unique geographic location offers a distinct advantage for United States producers.

i. MALAYSIA

THE SETTING

Manufacturing and the Malaysian Economy

GDP increased at an average rate of 6 percent in the 1960s, and accelerated to 7.8 percent in the 1970's. The share of manufacturing in GDP increased from 8.7 percent in 1961 to 13.4 percent in 1970, and 20.5 percent in 1981, while value added, in constant prices, grew by 12.5 percent per annum during the 1970s. The major industries contributing to this record of growth were oils and fats, textiles, electronics, and electrical machinery.

Major Policy Instruments

The import substitution industrialization process had become well-established in Malaysia by 1973. At that time, 95 percent of consumer durable goods and 90 percent of consumer non-durables were being produced in the country. Given this solid production foundation a shift in focus occurred. A strongly "outward-looking" developmental strategy was devised in the early 1970's, and Malaysia moved quickly to adopt measures which would encourage export-oriented growth.

The Free Zone Act of 1971, signalled the start of FPZ development in Malaysia. Malaysia has successfully strengthened the role of the Malaysia Industrial Development Authority (MIDA), for the promotion and coordination of joint ventures between foreign and domestic groups.

Major Growth Sectors

The leading sectors in exports have been electrical and electronic products. Between 1976 and 1981, exports in these categories increased dramatically from US\$237 to US\$1,368 million for a compounded annual growth rate of almost 45 percent over the five-year period. As a percentage of total manufactured exports, the electrical/electronic sector accounted for 49 percent in 1980 and 1981, rising to an estimated 53 percent in 1982.

Textiles, clothing and leather, the largest of "secondary" export sectors, peaked in 1981 with a gross export value of US \$337 million, or about 12 percent of all manufacturing. The six major export sectors, lead by electrical/electronic products, represent about 90 percent of all manufactured exports. Electrical/Electronic Products and Textiles, Clothing and Leather Goods alone account for almost two-thirds of the total.

The Role of 806/807 Industries in the Economy

Official statistics show that Malaysia is second only to Mexico as a source of 807 imports to the United States from developing countries. In aggregate, Malaysia's 807 exports to the U.S amounted to 38 percent of total Malaysian manufactured exports in 1982 and are expected to follow a rising trend in 1983 and future years. Of the total US\$1,092 million 807 exports, 90 percent were semiconductors with an additional 4 percent listed as electrical articles.

Textiles and wearing apparel accounted for less than US \$1 million of exports indicating that this sector is no longer competitive in 807 exports.

In the semiconductor industries, the percent of U.S components used in the manufacturing process is approximately 55 percent. This indicates the strong presence of U.S. multinationals either through direct foreign investment or subcontracting. However, it also appears that Malaysia is increasingly using domestic raw materials and intermediary goods in the manufacture of semiconductor products.

COMPETITIVE POSITION OF MALAYSIA FOR PRODUCTION SHARING MANUFACTURING

Despite the relatively high labor costs, transport costs and weak incentives package, Malaysia has been the most successful 807 exporter of semiconductor products. Over time, the country has developed a large pool of managerial talent, and a competitive domestic industrial support network, which has served to attract new investment.

INVESTMENT CONDITIONS

Basic Economic Factors of Production

Land and Buildings

Developing industrial parks has been a major program since the first industrial estate was established near Kuala Lumpur in 1952. As of December 31, 1983, a total of 100 industrial estates, including 12 designated free zones, have been established under government aegis.

Capital Investment Policy and Instruments

Although the majority of capital investment in new manufacturing facilities is of foreign origin, short and long-term capital is available on the local market. The Government of Malaysia has actively pursued a policy of promoting joint ventures to increase technology transfer and the use of domestic raw materials in the manufacturing

sector. Subsidized capital from public sources is not readily available, but the strength and resources of private lending institutions has been increased. Complementing the short term credits available from commercial banks, private merchant banks and "Borrowing Companies" offer services such as underwriting, raising of equity capital, long-term financing for industrial and other construction needs and help with mergers and acquisitions.

Labor

A.

Labor productivity is high due, in part, to the relatively high educational level of the population and to the pervasive work ethic originating in Malaysia's large Chinese population. It is being deliberately fostered and encouraged by the Government throughout the native Malaysian community. Vocational and technical training institutions are widespread and the standard of training is comparable to those in industrialized countries.

Trade unions are prevalent in Malaysia, but do not impede productive activity. Under the Trade Union Ordinance and Trade Union Regulations of 1959, government has encouraged the organization of responsible trade unions.

Fuel and Freight

Malaysia's three major ports, Kuala Lumpur, Malacca and Penang, are models of up-to-date facilities and efficient administration. Port charges and cargo handling capabilities are competitive with other regional ports and are equipped to handle dry and liquid bulk products, general cargo and palletized and unitized cargo and containers. Because of Malaysia's proximity to the important east-west sea lanes connecting the Indian Ocean with the Pacific, there is considerable ocean traffic.

Four international airports, served by five regionally-based international airlines and several of the largest western-based lines, assure adequate passenger and air cargo services.

Intermediate Goods

The rapid expansion of manufacturing industry has given rise to a large and diversified intermediate goods sector. Indeed, domestic production of electrical and electronic components, textiles, kiln-dried wood, pulps, petroleum, etc., are among the important factors catalyzing the strong growth of the finished products sector.

Infrastructure and General Services

General services, such as electricity and communications are reliable and efficient. Power supply, water supply and other services are acceptable except in the undeveloped areas, where such services may be substandard.

Taxes and Regulatory Conditions

Taxes

The investment incentives offered in the form of tax benefits are based on the Investment Incentives Act of 1968. Exemption is offered based on location, employment level and the amount of capital invested. Most export-oriented industries qualify for this tax holiday which includes total relief from the payment of income, development and excess profits taxes. Other tax benefits offered include: accelerated depreciation allowances and reinvestment allowances.

Regulations

For companies manufacturing for the export markets, there are no customs duties on machinery and equipment used in the plant or on imported raw materials. Repatriation of capital and remittances abroad are freely permitted, but approval by the Controller must be obtained for payments in excess of M\$2 million. Malaysia has also concluded Investment Guarantee Agreements and Double Taxation Avoidance Treaties with all of its significant trading partners.

Stability of the Investment Climate

Malaysia's reputation for equitable treatment of private investors, foreign and domestic, under its constitution, is one of the country's strongest assets in competing for private foreign capital. Today, social and political stability is strong and the outlook remains excellent.

ACCESS TO MARKETS

With the exception of the benefits accruing to Malaysia as a member of the ASEAN group, and the Generalized System of Preferences, there are no special trading arrangements for Malaysian exports. The United States has imposed quotas on garment and textile products originating in Malaysia, particularly cotton goods which has deterred new investment in this sector.

j. PHILIPPINES

THE SETTING

Manufacturing and the Philippine Economy

The Philippine manufacturing sector has changed substantially since World War II.

In the early 1970's, a major shift from import substitution policies to export-oriented growth was undertaken. The value of manufactured exports rose by a factor of eight, and by 1980, manufactured exports accounted for 36 percent of total exports as compared with 9 percent in 1971. (1) The electronic and electrical equipment sector has been a major contributor to the high growth of manufactured goods. In 1982, this sector accounted for 40 percent of manufactured exports compared to nil in 1970. Production of garments also remains a major activity and production has risen by six fold in real terms since 1970.

Major Policy Instruments

After the introduction of Martial Law in 1972, the Philippine peso was devalued and the tariff and labor laws were modified to make Philippine products more competitive. The Export Processing Zone legislation and the Bonded Warehouse legislation enacted in 1971 permit the duty-free entry of raw materials intended to be re-exported as finished products.

Domestic producers of apparel were the first beneficiaries of these policy changes. In general, the ability to import raw materials duty-free has provided manufacturers access to raw materials making exports more competitive. The Export Processing Zone Legislation has also opened the door for foreign investment in light manufacturing industries.

Major Growth Sectors

The major growth sectors for the manufacturing export sector in the Philippines are the food processing industries, light engineering products and the shoe industry. Increased capital investment in textile machinery and equipment is earmarked to improve the competitive position of local suppliers.

The Role of 806/807 Industries in the Economy

Exports from the Philippines under TSUS 806/807 have increased from US\$264 million in 1979 to US\$660 million in 1982. (2) These exports accounted for approximately 21 percent of total manufactured exports from the country in 1982. (3) Semiconductors comprise approximately 84

- (1) Central Bank of the Philippines
- (2) United States International Trade Commission. USITC Publication 1467, January, 1984.
- (3) Central Bank of the Philippines

percent of 806/807 exports to the United States and contain approximately 68 percent American-made components. In contrast, exports of apparel products accounted for only 5 percent of 806/807 exports.

Competitive Position of the Philippines for Production Sharing Manufacturing

The Philippines has an advantage in producing labor intensive goods at the low end of the market where design specifications and quality control are minimal. These products are generally at the end of their life cycles and access to the most cost-effective means of production is critical to remain in the market. The country offers: inexpensive wage rates and its proximity to Taiwan, South Korea, Hong Kong and Singapore has provided producers in the Philippines with the most inexpensive sources of raw materials.

The production shift from the NIC's in Southeast Asia to the Philippines is particularly prevalent in the garment industry. Not only have wage rates been an important determinant of investment decisions, but the imposition of bilateral quotas for apparel products has forced producers in Taiwan, Hong Kong and South Korea to manufacture outside their own territories in order to have access to the United States market.

INVESTMENT CONDITIONS

Basic Economic Factors of Production

Land and Buildings

Most exported goods are transported through Metro Manila where a well-developed infrastructure and other support facilities are readily available. However, this area is highly congested and industrial land is not readily available. In an effort to decentralize industrial activities, the government has established fifteen industrial estates throughout the country, four of which are export processing zones but the available space in the Export Processing Zones has not been highly attractive to potential foreign investors.

Capital

The availability of local capital has played a critical role in the growth of manufactured exports from the Philippines. Although manufacturing enterprises are permitted 100 percent foreign ownership, the general pattern of investment has been that of participation with local partners.

In recent times, however, capital has become relatively scarce in the private market and new investment in the manufacturing sector has severely declined. Since January 1983, approximately US\$200 million has left the country due to civil strife and lack of confidence in the

economy. (1) The country's present external debt figure of US\$18 billion has also influenced interest rates and foreign exchange availability has been restricted.

Labor

Wage rates in the Philippines are the lowest in Southeast Asia. The cost per hour of labor, even when adjusted for productivity, is the lowest in the Far East. However, union activity and labor unrest are strong in the Philippines and work stoppages are frequent. "Sympathy" strikes have occurred periodically.

A subsidy for the training of workers is offered to all export-oriented manufacturing operations. For a six-month apprenticeship period, industrialists are only required to pay a portion of the minimum wage.

Fuel and Freight

The Philippines imports the majority of its energy requirements and thus, the price and supply of electricity and natural gas is severely affected by world market prices. Ocean and air freight rates to the United States are more expensive than those of neighboring countries in Southeast Asia, but do not pose a major deterrent to investment. Inland freight rates from Manila to outlying industrial centers are expensive and increase the overall cost of production. For example, the cost for shipping one metric ton of goods from Metro Manila to Bataan is approximately US\$2,500.

Intermediate Goods

Although intermediate goods for the garment industry and the semiconductor industry are available in the Philippines, almost 100 percent of these materials are imported. In general, the quality of intermediate goods in these two industries is inferior and they are considerably more expensive than imported products. However, repair parts and services are readily available and do not pose a problem for foreign investors.

Infrastructure and General Services

Ports and airports in the Metro Manila area are excellent and generally efficiently run. Road infrastructure is adequate, but heavily congested. Utilization of port facilities and internal connections between the islands is often difficult, particularly during inclement conditions.

Tax, Regulatory, and Tariff Conditions

Taxes

The Government of the Philippines does not offer an income tax holiday to foreign investors or any manufacturing enterprises.

(1) Central Bank of the Philippines

Production Sharing International, Ltd.

Exemption from export and stabilization tax, contractor's tax and property tax upon imported capital goods and raw materials are offered to all potential investors without any time restrictions.

Regulations

There are no major regulatory barriers to investment in the Philippines. Foreign investors are guaranteed the free repatriation of investments, and remittance of earnings. Bureaucratic delays are minimal if the proposed operation is 100 percent export oriented.

Stability of the Investment Climate

The absence of political stability in the Philippine society is one of the greatest drawbacks to investment. This has no doubt been exacerbated in recent months as civil strife continues to grow and the nature of the Marcos regime has been seriously challenged.

k. TAIWAN

THE SETTING

Manufacturing and the Taiwanese Economy

Over the past three decades, Taiwan has transformed its economy from that of a developing to a Newly Industrialized Country in four distinct phases:

Beginning in the early 1970's, Taiwan launched a program to develop heavy industries in conjunction with increasingly integrated manufacturing of electronics products. Taiwan's index of industrial production averaged 15.3 percent annual growth—one of the world's highest—during the 1970's. Taiwan weathered the 1980-82 recession because of diversification into technology-intensive growth industries. Its manufactured exports nonetheless remain preponderantly dependent upon one market—the United States market (which in 1982 accounted for almost 40 percent of Taiwan's exports and 24 percent of its imports). (1)

Major Policy Instruments

The outstanding performance of Taiwan's manufacturing sector has resulted from policy decisions that capitalized upon Taiwan's fundamental strengths, most notably a stable investment climate and a highly productive labor force. For the most part, the policy decisions over the past 25 years have been free market-oriented, aimed toward stimulation of export industries, foreign investment, and indigenous entrepreneurs.

Major Growth Sectors

Taiwan's growth sectors have been the electronics industry and textiles. Growing, but less dynamic sectors, include canned and processed foods, plastics, leather products, garments, knitwears, and leisure products.

In the 1980's, the dominant export manufacturing sectors were textiles, with \$4.78 billion, followed by electrical machinery/components with \$3.91 billion, metal products/machinery with \$1.86 billion, and plastics products with \$1.49 billion. (2) Growth rates have been greatest in the electronics industry.

The Role of 806/807 Industries in the Economy

The total 806/807 exports from Taiwan in 1982 were US\$544 million, making Taiwan one of the top ten 806/807 producers in the world. The

- (1) Economic Development in Taiwan, Republic of China, Ministry of Economic Affairs (Republic of Taiwan), Taipei, April 1983.
- (2) Economic Development in Taiwan, op. cit.

major product exports under 806/807 are television receivers and parts, semiconductors, watches and game machines. Exports of all 806/807 products accounted for 2.4 percent of total Taiwanese exports in 1982. (1)

COMPETITIVE POSITION OF TAIWAN FOR PRODUCING UNDER SECTION 806.3/807

The success of 806/807 industries in Taiwan has been brought about through a variety of favorable factors. Outstanding levels of labor productivity make Taiwan one of the most cost effective locations for assembly and light manufacturing in Asia. Well-developed indigenous subcontracting capabilities enable foreign firms to send product specifications and United States components to existing Taiwanese manufacturers without direct investment.

Taiwan also has several important disadvantages for 806/807 producers. The growing availability of high quality, low-priced components from Taiwanese suppliers (and from nearby Newly Industrialized Countries) has reduced the use of U.S.-made components by 806/807 manufacturers. Rapidly rising labor costs are forcing manufacturers to turn away from Taiwan as a base for routine, labor-intensive assembly operations. Moreover, Taiwan's distance from the United States makes transportation more costly and time consuming than to Caribbean and Central American locations. This limits Taiwan's potential for low-value/high bulk or heavy products, and reduces the ability of American executives to oversee production facilities.

Infrastructure/General Services

Ports and airports are run efficiently and offer a full range of cargo handling services. A new highway system, built to international standards, connects the principal cities of Taiwan. Roads, water, and sewer systems range from adequate to excellent. Domestic and international communications services are excellent and competitively priced. Electrical power is available for heavy industry in the major manufacturing areas.

Tax, Regulatory, and Tariff Conditions

Taxes

Export-oriented companies in electronics assembly, precision tools manufacturing, and a wide range of other industries are eligible for five year corporate income tax-holidays wherever they locate in Taiwan.

Upon conclusion of the tax holiday period, most Taiwanese export manufacturers have remained in operation. This appears to be attributable in part to the relatively minor role that tax incentives play in location decisions, and in part because the normal tax incidence upon corporations in Taiwan is low.

(1) Monthly Bulletin of Statistics, Ministry of Economic Affairs, July 1983.

Regulations

Taiwan provides a favorable regulatory climate for export-oriented manufacturers. The principal obstacle encountered by foreign investors consists of government controls on movements of capital, specifically profit remittances outside Taiwan.

Tariffs

Taiwan has adopted a non-protectionist policy for its manufacturing sector. Administration of Customs is generally conducted on a business-like basis. Duty-free export processing zones, in-bound manufacturing facilities, and customs drawbacks are all available to export industries.

Stability of Investment Climate

The Government of Taiwan has adhered to generally free market, free trade policies for the past 20 years. With uninterrupted tenure for 33 years, it is considered to be among the most stable and established governments in Asia. The major uncertainty surrounding the investment climate is the prospect of ultimate reabsorption into mainland China. Civil strife and labor activity are minimal due, in part to the censorship and influence of the government.

Access to Markets

Rising trade barriers among developed countries in recent years have reduced the growth of the export manufacturing sector, particularly among textiles, garments, and some electronics products. U.S. quotas—voluntary and otherwise—have recently been relaxed for television sets and shoes.

INVESTMENT CONDITIONS

Basic Economic Factors of Production

Land and Buildings

Although densely populated, Taiwan offers substantial quantities of raw land and improved sites for light and heavy industry. Standard factory buildings are available at more than three dozen industrial estates and the Nantze Export Processing Zone.

Capital

Taiwan has consistently demonstrated extraordinary rates of capital formation (in 1982, 24.6 percent of GDP) and Overseas Chinese capital has consistently provided liquidity to the economy.

In recent years, the Government has redirected funds once earmarked for infrastructure development to financing privately-owned companies in electronics and other high growth sectors. Such financing is

principally limited to indigenously-owned or joint venture enterprises. At the new Science-Based Industrial Park, the Government has also offered capital for equity interests in high-technology foreign-owned firms.

Labor

Taiwanese labor costs have risen sharply in the past decade. Turnover rates are high (over 30 percent per year), especially among unskilled and semiskilled workers. Union disruptions are almost non-existent. A large supply of middle management and technical personnel is available in comparison with most Less Developed Countries.

A substantial and effective vocational skills training program operates in Taiwan. The focus of Taiwanese training programs is increasingly on computer and information technology-related skills. Through public universities, Taiwan has also created a supply of trained engineers.

Fuel/Freight Services

Taiwan imports virtually all of its energy requirements; as a result, its economy is severely affected by sudden shifts in price and supply. Ocean and air freight rates are extremely competitive.

Intermediate Goods

The indigenous private sector has become skilled at supplying components and business services to export industries except to the more advanced electronics technologies, where concerns about quality control over locally-produced components remain strong. An indication of the strength of locally-produced components among Taiwan's export manufacturers is found in value added for goods produced under 806/807. 82 percent of the F.O.B. Taiwan value was added in Taiwan.

Access to Markets

Rising trade barriers among developed countries in recent years have reduced the growth of the export manufacturing sector, particularly among textiles, garments, and some electronics products. U.S. quotas—voluntary and otherwise—have recently been relaxed for television sets and shoes.

IV. CONCLUSIONS

A. General Findings and Outlook

In conclusion, the growth prospects for production sharing in the Caribbean Basin countries are very favorable. The Caribbean has entered the first stage of the production sharing investment cycle.

The Caribbean/Central American countries do not yet account for a large share of 806.30/807.0 imports, but in 1982 2.5 percent of the total value of 807.0 imports were produced in the region. Apparel products account for over 75 percent of these imports. In only one country, Barbados, are non-apparel products the leading component of 806.30/807.0 imports to the United States.

The Caribbean/Central American 807.0 imports utilize a high percentage of U.S. components. Almost 100 percent of the raw materials are imported from the United States indicating either a lack of local supply or high duty on non US components. In contrast, the percentage of US raw materials used in the manufacturing process in the Far East, particularly Taiwan and Malaysia, is below 50 percent.

There is a movement of production away from the Orient as wages begin to rise with the increasing level of development in many countries. In apparel the lack of additional quota in the Far East is driving many manufacturers to look for alternative locations. The Caribbean, since it is comparatively free from quota restrictions, is a logical place to consider. As the labor force and the indigenous entrepreneurs gain experience with producing for an export market this developing expertise can be applied to other products.

In the Newly Industrialized Countries in the Far East, (Taiwan, Hong Kong, South Korea and Malaysia), there has been a continual trend to relocate high labor intensive, low value added products to new locations as a result of rising labor costs. At present, the major competition from the Far East is for more capital intensive products, particularly electronics which contain a high percentage of value added in the host country.

Reinforcing the effects of the above factors is the influence of the CBI. Its first effect is to focus attention on the region; it highlights the Caribbean as an area of interest to overseas investors. Beyond this marketing role, however, it also offers substantial economic advantages. The

benefit of guaranteed duty free access is significant when the GSP is in danger of being taken apart piece by piece, if not dismantled altogether.

It should also be noted that many foreign (Far East) manufacturers have established or are investigating manufacturing facilities in the Caribbean. The lure of quota-free production locations in the case of apparel and the attraction of duty-free entry into the US market for the broad array of commodities included in the CBI are important factors.

The costs of production in the lowest cost Caribbean nations are competitive with the alternatives (Mexico and the Far East) in some of the product categories. There is, however a wide range of costs among the different Caribbean Basin countries.

Consideration of additional investment criteria using the Investment Decision Grid improves the ranking of some of the higher cost producers. Consideration of these factors overall tends to place the Caribbean in a relatively more favorable perspective, indicating hidden advantages of the Caribbean.

The major factor working against the Caribbean is lack of experience. Lack of manufacturing experience means that the workforce has not the opportunity to develop the necessary skills, discipline and competence; local managers and entrepreneurs have not had the benefit of dealing extensively with a foreign market; and infrastructure is not always in place to handle a high volume of exports. These drawbacks are formidable, but the advantages exist to make overcoming the drawbacks worthwhile.

B. Apparel Products - Men's Dress Shirts

1. Caribbean Basin Countries

Without the adjustment factors, none of the Caribbean Basin Countries represent the lowest cost location for men's long sleeve dress shirts, but in two instances (Haiti and Costa Rica), the cost differential is minor. The major reason for the higher cost of production in the CBCs is source and cost of the raw materials. The majority of raw materials for men's long sleeve dress shirts in the Caribbean are imported from the United States in order to qualify for duty exemption under TSUS 807. However, the cost of this material is generally 30 percent higher than similar fabrics produced in the Far East. Material costs represent 67

percent of the total cost of production in the CBCs. The 30 percent cost differential between United States fabric and materials from the Far East has placed some of the CBCs at a disadvantage.

Among the Caribbean countries, Haiti is the lowest cost producer for men's long sleeve dress shirts. The cost of production in Haiti is less than one percent more than the Philippines, the lowest cost production center. The cost of production in Panama and Barbados is the highest at 16 percent more than Haiti.

However, the CBCs maintain an advantage over Far East producers in terms of access to the United States market. Due to quota limits imposed by the United States, apparel products originating in Taiwan, Hong Kong, South Korea and the People's Republic of China have been restricted. However, although quotas exist for a few specific products (i.e. brassieres) produced in Costa Rica, Haiti, Dominican Republic and Jamaica, quotas have not been a major impediment for expanding production in the CBCs. This unrestricted access to the U.S. market has been one of the major reasons for the growth in apparel exports from the Caribbean region.

2. Mexico

On a pure cost basis, Mexico is the fourth lowest cost center for men's long sleeve dress shirts. Similar to the CECs, apparel producers in Mexico use United States fabric and components in the manufacturing process. As a result, the total cost of production is higher than the Far East: Mexico's cost are 5.8 percent higher than the Phillipines and 5.1 percent higher than Haiti.

When the adjustment factor is considered, Mexico becomes the second lowest cost center. For apparel products and other light-manufactured goods, Mexico enjoys a distinct freight cost advantage. Administrative procedures and quality control are also easier to manage due to close proximity to the United States. Finally, labor productivity in the border area is highly acclaimed by plant managers.

However, access to the United States market is restricted by quota limits for some apparel products manufactured in Mexico. In specific product categories, growth has been curtailed and little new investment has been recorded in recent years.

3. Philippines

In contrast to Mexico and the CBCs, apparel products produced in the Philippines are not exported to the United States under TSUS 807. For apparel exports from the Philippines full duty is paid. Despite this substantial cost, the Philippines remain the lowest cost production center for men's dress shirts. However, this cost advantage is only marginal in relation to Haiti (less than 1 percent lower) and Costa Rica (5 percent lower.)

The Philippines maintain their comparative advantage for three major reasons: lower material costs, lower labor, administrative and overhead costs and available, reliable subcontractors. The Philippines are located in close proximity to the cheapest source of raw materials (Hong Kong, Taiwan and South Korea) which reduces freight costs and delivery time. The labor costs in the Philippines are the lowest in the Far East and the workforce is well-trained for apparel and light-manufacturing assembly. Finally, United States importers are well acquainted with subcontractors in the Philippines and the need for direct foreign investment has largely been eliminated. All of these factors are particularly relevant for lower priced goods.

However, in recent times, access to the United States market has been restricted through the use of quotas for

specific apparel products. Further, labor instability and civil and political strife have forced some United States and Far East manufacturers to shift production centers and sources of supply away from the country. These factors are reflected in the adjustment cost factor which places the Philippines at a distinct cost disadvantage in relation to the CBCs and Mexico.

C. Automotive Products: Automotive Flashers

1. Caribbean Basin Countries

Based on our cost analysis, Haiti and Costa Rica are the lowest cost production centers for automotive flashers. The cost of production in Haiti is 6 percent lower than Mexico and 15 percent lower than Taiwan, the present sources of 807 imports. Once again, Panama is the most expensive production center at 13 percent higher cost than Haiti.

When the adjusted cost factor is applied, Costa Rica and Mexico emerge as the lowest cost production locations. The pure cost advantage in Haiti is eliminated due to poor quality control and the lack of skilled labor, technicians, and management personnel.

Unlike apparel products, automotive flashers are eligible for complete duty exemption under the General System

of Preference (GSP) except in Taiwan and Mexico. All of the CBCs analyzed in this study are eligible for this exemption which further reduces costs compared to Taiwan and Mexico. However, the minimum availability of skilled labor and a depressed automobile market in the United States has impeded growth of this product in the CBC's. Training efforts and the recent growth potential of this product may induce a shift in production to the CBC's.

2. Mexico

Despite the fact that production costs for flashers are higher in Mexico than Haiti and Costa Rica, automotive flashers are being produced in the border area. The automotive flashers contain U.S. components and are exported to the United States under TSUS 807. The major reason cited by the United States manufacturer is the availability of a skilled labor force and ease of controlling operations from the United States. However, the growth potential for producing this product in Mexico has been substantially decreased. At present, automotive flashers produced in the country are no longer eligible for duty-free exemption under the GSP.

3. Taiwan

Automotive flashers are currently produced in Taiwan, but do not utilize U.S. components. It is presently alleged that these automotive flashers are manufactured from inferior components and do not meet the Department of Transportation (DOT) standards. For purposes of this cost comparison, material costs have been adjusted to meet the DOT's standards. The findings indicate that costs in Taiwan are substantially higher than both Mexico and the CBC's.

The major factors contributing to this high cost are high direct labor costs, overhead and duty payments. Like Mexico, automotive flashers produced in Taiwan are not eligible for GSP exemption. These findings also substantiate the conclusion that Taiwan is no longer a direct competitor of the CBCs for products which utilize a high percentage of U.S. components.

D. Electronic Components: Specialty Power Supplies

1. Caribbean Basin Countries

Considering both pure costs and the adjustment factor, none of the CBC countries are cost competitive with Malaysia for producing specialty power supply boards. Power circuit boards produced in the CBCs utilize 100 percent U.S.

components and are exported to the United States under TSUS 807. In contrast, production of this product in the Far East utilizes local components and U.S. components. At present, the major reason for the cost differential between the CBCs and the Far East lies in material costs. Labor, the second largest cost component of the product, is less expensive in both Haiti and Costa Rica.

Without the adjustment factor, Haiti and Costa Rica are the lowest cost production centers in the Caribbean Basin. With the exception of Barbados, this product can be produced in all the CBCs at less cost than Mexico.

Power supply boards are also eligible for duty exemption under the GSP. All of the countries examined in this study, excluding Mexico are eligible for the GSP exemption. Due to this world-wide competition and lower pre-assembly costs realized in the Far East, power supply boards produced from U.S. components in the CBCs are not cost competitive at present. However, if non-U.S. components are used in the manufacturing process, all CBC's could produce the product at lower cost than Malaysia.

The findings of this analysis indicate that growth potential for this product exists in the CBC if Far East components and investment are used. The product would then be exported to the United States under GSP or CBI rather than TSUS 807, assuming the 35 percent value-added requirement can be met.

2. Mexico

The power supply boards currently produced in Mexico utilize U.S. components and are exported to the United States under TSUS 807. Mexico no longer has access to the duty-free exemption offered under GSP. When GSP is considered, the cost of production for this product in Mexico is not competitive. Among the Caribbean countries, only Barbados has higher costs.

Freight costs from Mexico are lower than any other country. This is due to the lower costs realized from transporting by truck, rather than air. Labor costs are also competitive in Mexico compared with the CBCs.

At present, the major reason for producing this product in Mexico rather than the CBCs is ease in control over operations. Producers also cited long-standing relationships with the suppliers and excellent labor productivity.

3. Malaysia

Malaysia is presently the largest LDC exporter of power circuit boards. The product is produced at less cost than any other country analyzed. A large percent of the components are manufactured locally and the product is exported to the United States duty-free under the GSP provisions.

Malaysia has gained this comparative advantage for this product and other electronic products as a result of a skilled, productive labor force and a well-developed physical and service infrastructure. The workforce is well equipped with engineering and quality control skills. A well-developed service sector is established to supply manufacturers with machinery replacement parts, components, and packaging materials. Subcontracting with local entrepreneurs has also begun to develop. Further, manufacturers have faced little difficulty in changing product lines or production processes.

However, similar to other newly industrialized countries in the Far East, labor costs are slowly rising in Malaysia. As this trend continues, foreign investors, as well as local entrepreneurs will be forced to seek lower cost production centers, particularly the CBCs. As this study indicates, the CBCs can be internationally competitive if non-U.S. components are utilized.

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V. RECOMMENDATIONS

There are a number of actions which should be taken to strengthen the development of production sharing operations in the Caribbean Basin countries. These recommendations fall into two broad categories: improving the marketing of existing opportunities in the Caribbean Basin and developing additional opportunities.

A. DEVELOP ADDITIONAL CARIBBEAN BASIN OPPORTUNITIES

1. Strengthen Programs for Subcontractors

The findings of this study indicate that availability of local subcontractors is a key factor for increasing exports and developing a more sophisticated industrial base. This study also shows that local investment as well as foreign investment has been one of the prime impetuses for growth in the Newly Industrialized Countries in the Far East. However, at present, subcontracting opportunities in most of the CBCs are hampered by a lack of awareness and the lack of consistent ability to meet U.S. quality and production standards. Further, most investment incentives are geared toward the foreign investors, rather than the indigenous contractor. It is recommended that investment incentives for indigenous entrepreneurs be strengthened and bureaucratic delays and bottlenecks be reduced.

2. Strengthen Extended Credit Facilities

A program of loans to indigenous entrepreneurs in the CBCs to develop subcontracting capabilities should be developed. These credit facilities should be used to finance the purchase of raw materials, equipment and upgrading production facilities. This program should be designed using, as a model, Far East practices which transfer the burden of financing working capital from the importer to the contractor through government guaranteed loans.

3. Accelerate Entry By Informal Sector

Entrepreneurs Into the Formal Economy

In many CBCs, the informal sector represents a sizeable pool of entrepreneurial talent that remains unreached through traditional assistance programs. By removing regulatory and tax obstacles, through, for example, the creation of enterprise zones and one stop permit processes, countries can stimulate enterprises operating in the upper reaches of the informal sector. Such firms can strengthen the myriad support services (repair shops, equipment vendors, etc.) needed by subcontracting operations. Over time, some of these entrepreneurs can develop directly into production sharing subcontractors.

4. Expand Use of the Shelter Plan

The shelter plan concept has proved effective as a means of introducing U.S. investors to offshore manufacturing and stimulating Caribbean Basin entrepreneurs. In general, the shelter plan can reduce the amount of start-up capital necessary, especially if extended credit facilities are made available. A model program should be developed.

5. Support Efforts to Improve Labor Skills/
Productivity

Given the differential in workforce skills and productivity in the CBCs compared with the Far East, development institutions in the host country should give priority to training initiatives. Efficiency of existing training institutes should be strengthened and technical training programs upgraded. One method of improving efficiency may be to link the funding levels of training institutes to their success in placing trainees in private sector jobs.

6. Develop Alternative Sourcing Options

Local producers need to consider all available options in order to reduce the final cost of their product. If the product is eligible for CBI or GSP benefits, then sourcing from the lowest cost supplier on the world market is the best strategy. If the product is not eligible for either of these

tariff provisions, sourcing from the United States under TSUS 807 should be compared with other potential sources of supply.

B. Improve the Marketing of Existing Caribbean Basin Opportunities

1. Strengthen Existing Promotional Strategies

Many promotional efforts in the past have been broadly based and have not concentrated on the comparative advantage of each country. We recommend that each CBC should develop its own investment strategy based upon attracting specific US and Far East industries to expand or relocate light assembly operations to their country. Companies presently engaged in production sharing operations should be targeted at the outset. Prospective industries should be invited to speak not only with investment officers and government officials, but with members of the private sector.

2. Encourage Investment Seminars

One of the key processes of investment promotion is making potential industries aware of opportunities in the CBCs. Seminars, workshops and conferences should be encouraged with active participation from host countries as well as manufacturers.

**3. Develop A More Comprehensive Data Base On
Investment Opportunities**

To provide more information on Caribbean Basin Investment opportunities, a comprehensive data base on the comparative advantages of participating countries should be developed for a wide range of specific industry sectors. This effort might include development of computer models to enable specific firms to calculate "bottom line" savings from establishment of production sharing activities in the Caribbean Basin.

**4. Allocate Adequate Resources For Promotional
Activities**

Studies conducted by Production Sharing International indicate that approximately \$800 is needed for investment activities for each job created in production sharing operations. These costs involve foreign investment promotion offices, brochures, films, travel, seminars, etc. It is recommended that studies be undertaken of the possibility of establishing a revolving fund for investment promotion which would be replenished from the new foreign exchange earned through successful foreign investments.