

# ANNUAL REPORT ON THE JAMAICAN ECONOMY

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## 1990

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## OVERVIEW

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The Jamaican economy recorded growth of 3.8 percent in 1990. This economic performance is significant when it is considered that the global economic growth slowed in 1990, after a rapid expansion between 1988-89. Additionally, there were a number of unforeseen global economic shocks in 1990. The widespread repercussions of these changes adversely affected the Jamaican economy. Generally, economic performance was influenced primarily at the macro-economic level by:

- a) a high rate of inflation and interest rates;
- b) an increase in foreign exchange arrears and growth in the money supply;
- c) the Gulf crisis and its negative impact on tourism and oil prices;
- d) a 25.2 percent depreciation in the value of the Jamaican dollar against the U.S. Dollar;
- e) the worldwide economic recession.

In 1990, there was a continuation of tight monetary and fiscal measures in addition to selective policy instruments aimed at export expansion and diversification. Specifically, the central bank used such policy instruments as: increases in the cash reserve and liquid asset ratios of the commercial banks, open market operations (treasury bills and certificates of deposits), credit ceilings, an amended exchange rate regime, among others, in an effort to ensure consistency with overall economic objectives.

On the fiscal side, Central Government's fiscal operations in FY1990/91 resulted in an overall fiscal surplus (net of amortization) of \$335.1m or 1.1 percent of GDP in 1989/90. Debt servicing amounted to \$4,652.4m in FY1990/91. This represented a 15.2 percent increase over the previous year.

Inflation grew at 29.8 percent, the exchange rate moved from J\$6.50 per US\$1 at December 1989 to J\$8.14 per US\$1 at December 1990 at the weighted inter-bank rate. The effective rate was approximately J\$9.00 per US\$1.

On the external accounts, there was an 11.8 percent reduction in the balance of trade deficit and a 7.6 percent improvement in the current account deficit to minus US\$724.3m and minus US\$237.7m respectively.

Net transfers decreased from US\$322.9m in 1989 to US\$243.0m in 1990. This significant reduction of 24.7 percent occurred largely as a result of reduced inflows

during the three-month period in which there was no IMF agreement.

Future performance of the economy is dependent on a number of factors. The most important internal ones being sustained economic growth, the achievement of a truly market-determined exchange rate, as well as a review of interest rates. Future growth will also be dependent upon favourable external conditions, including: improved international competitiveness, low and stable petroleum prices and improvement in the growth trends of Jamaica's main trading partners. For 1991, GDP is expected to record real growth of at least one percent.

# GROSS DOMESTIC PRODUCT

The preliminary estimate for Gross Domestic Product in current prices is \$28,691.4 million in calendar year 1990. This represents an increase of 29.1 percent over the \$22,224.1 million recorded in 1989. Adjusting to eliminate the impact of price changes, the movement was from \$2,103.9 million to \$2,184.2 million, an increase in real terms of 3.8 percent in constant 1974 prices.

This outcome is posited on continuing demand restraint and fiscal tightening and is consistent with growth targets. Most important perhaps, the 3.8 percent growth is consistent with the targeted balance-of-payments improvement. Economic performance in 1990 was influenced at the macro-economic level by:

1. A high rate of inflation;
2. High interest rates;
3. A build-up of foreign exchange arrears;
4. Significant growth in money supply;
5. The Gulf crisis, which had a direct impact on tourism and oil prices;
6. A 25.2 percent deterioration in the value of the Jamaican dollar against the US dollar;
7. Open market operations by the Bank of Jamaica in an effort to restrain liquidity;
8. The deepening of economic liberalisation;
9. The maintenance of credit controls;
10. The worldwide economic recession.

These developments were partly reflected in aggregate demand where final consumption expenditure increased by 27.4 percent in nominal terms. Gross Investment or

Gross Fixed Capital Formation increased by 27.9 percent, whereas inventories declined by 61.4 percent. However, in the absence of the appropriate deflators the performance of the demand side in real terms is dubious. However on a priori expectations there was a significant decline in these accounts.

## Sectoral Performance

**Agriculture, Forestry & Fishing** is estimated to have grown 11.8 percent, the highest in over a decade. This extraordinary growth is partially attributable to the fact that the sector has now fully recovered from the ravages of hurricane Gilbert in 1988. The hardest hit sub-group of the Agricultural sector, Livestock & Hunting, recorded growth of 21.3 percent. However, these statistics seem to belie the underlying crisis in the Agricultural sector as the category titled Other Main Exports declined by 13.1 percent. This is apparently attributable to the tight demand management strategy maintained by the monetary authorities, which has culminated in extraordinarily high interest rates. In the continued absence of the appropriate infrastructure (roads, bridges, adequate water supplies etc), it is likely that this impressive level of growth recorded for the sector may not be sustained.

**The Mining & Quarrying Sector** in 1990 recorded growth of 17.6 percent. As usual, this growth was dominated by the Bauxite and Alumina sub-sector which grew by 18.0 percent relative to 1989. The increase, in alumina production in particular, is largely attributable to the output from the Alpart refinery which, though re-opened in 1989, only became fully operational in 1990. Bauxite & alumina

<b>Selected Aggregates (1985-1990)</b>				<b>Table 1</b>		
J\$ Million						
	1985	1986	1987	1988	1989	1990
Gross Domestic Product (Current Values)	11,202.6	13,388.5	16,002.1	18,748.0	22,224.1	28,691.4
Percentage Change	19.2	19.5	19.5	17.2	18.5	29.1
Gross Domestic Product (Constant Values)	1,836.1	1,868.2	1,983.4	2,012.6	2,103.9	2,184.2
Percentage Change	-4.6	1.7	6.2	1.5	4.5	3.8
% Change in GDP Deflator	25.5	17.5	12.5	15.5	13.4	24.3
Rate of Inflation (Point to Point)	23.0	10.4	8.4	8.8	17.2	29.8

SOURCE: Statistical Institute of Jamaica

**Gross Domestic Product By Expenditure (1985-1990)****Table 2**

J\$ Million

	1985	1986	1987	1988	1989	1990
Final Consumption Expenditure	9,513.2	10,521.8	12,237.1	14,474.0	16,997.2	21,658.9
Private	7,771.7	8,400.7	9,801.0	11,458.4	13,849.1	17,481.4
Government	1741.5	2,121.1	2,436.0	3,015.6	3,148.1	4,177.6
Gross Fixed Capital Formation	2,581.2	2,431.8	3,544.7	4,865.3	6,538.1	8,361.9
Increase in Stock	256.1	142.2	160.1	141.6	185.2	71.5
Export of Goods and Services	6,521.4	7,294.0	8,404.5	7,197.0	10,637.4	15,147.7
GDP in Purchaser's Value	11,202.6	13,388.5	16,002.1	18,748.0	22,224.1	28,691.4

SOURCE: Statistical Institute of Jamaica &amp; PSQJ Staff Estimates

demand are almost all derived from world aluminium demand, which appears healthy over the long term though currently soft. With the expansion of alumina refineries worldwide and the extraordinarily high cost of caustic soda (required in the processing) profitability of alumina may remain low for the time being. The price of oil, which has recently been volatile, will also affect cost.

**The Construction Sector** is estimated to have grown by a mere 1.2 percent, a significant decline in the rate of growth for the sector compared to previous years. This contraction is attributable to:

1. Decline in housing starts;
2. Decline in the number and value of building societies mortgage advances ;
3. Decline in commercial bank advances to the sector;
4. Increases in the price of cement, lumber and other costs of construction.

The slowdown in the sector may also be attributable to the reduction in post-hurricane rehabilitation, tighter credit ceiling and higher interest rates. The contraction is expected to continue through 1991 given the increase in stamp duties, and a general softening of demand.

**The Manufacturing Sector** is estimated to have grown by 4.1 percent. This growth was dominated by a 30.7 percent growth in petroleum refining. The Food, Sugar, Molasses and Rum, and Alcoholic and Non-Alcoholic Beverages groups recorded growth of 17.5, 4.6 and 4.7 percent respectively. However, the Tobacco and Textile products groups declined by 4.7 percent and 3.5 percent respectively.

**The Service Sector** inclusive of imported services, recorded growth of 1.6 percent. Growth in this sector was dominated by Finance and Insurance Services and Miscellaneous Services. Tourism, which is still not defined as an Economic Sector, is largely responsible for the growth in Miscellaneous Services. The sub-sectors

**Percentage Change in GDP by Sector (1985-1990)**  
(Constant Prices)**Table 3**

	1985	1986	1987	1988	1989	1990
Agriculture, Forestry & Fishing	-3.5	-2.1	5.2	-5.4	-4.3	11.8
Mining and Quarrying	-19.5	6.6	4.9	-4.7	37.9	17.6
Manufacturing	0.4	2.4	6.3	2.0	7.0	4.1
Construction & Installation	-8.3	3.1	13.9	14.7	19.0	1.2
Services	-4.2	1.5	5.7	1.5	0.7	1.6
<b>GDP at Constant Prices</b>	<b>-4.6</b>	<b>1.7</b>	<b>6.2</b>	<b>1.5</b>	<b>4.5</b>	<b>3.8</b>

SOURCE: Statistical Institute of Jamaica &amp; PSQJ Staff Estimates



**GDP by Sector (1985-1989) (Constant Prices)****Table 4**

(\$million)

	1985	1986	1987	1988	1989	1990
Agriculture, Forestry & Fishing	163.7	160.3	168.6	159.5	152.7	170.7
Mining and Quarrying	95.4	101.6	106.6	101.6	140.1	164.8
Manufacturing	299.0	306.1	325.3	331.8	355.2	369.8
Construction and Installation	104.3	107.4	122.3	140.3	166.9	168.9
Services (Net)	1,173.7	1,191.8	1,260.6	1,279.4	1,289.0	1,310.0
<b>GDP at Constant Prices</b>	<b>1,836.1</b>	<b>1,867.2</b>	<b>1,983.4</b>	<b>2,012.6</b>	<b>2,103.9</b>	<b>2,184.2</b>

*SOURCE: Statistical Institute of Jamaica and PSQJ Staff estimates*

Finance & Insurance, and Miscellaneous Services reflected growth of 10.9 and 8.7 percent respectively. Both sub-sectors are expected to continue to perform well in 1991. Other sub-sectors recording growth in the Services category are Electricity & Water (6.3 percent), Distribution (one percent), Transport, Communication and Storage (3.5 percent), Real Estate and Business Services (5.4 percent) and Household and Private Non-profit Institutions (6.3 percent).

The economy has now had 5 successive years of growth - albeit small. The economy has entered a period in which annual growth should be at least one percent annually over the medium term provided the momentum of divestment and liberalization is maintained.

The achievement of these medium term projections is dependent on a number of factors, including petroleum prices. Much will also depend on the pace of growth of the economies of Jamaica's main trading partners, as well as the success of efforts to improve Jamaica's competitiveness. In this regard, the achievement of a truly market-determined exchange rate, as well as a review of the current interest rate structure are critical. For 1991, GDP is expected to record real growth of at least one percent assuming that changes in the exchange rate, prices and interest rates in both the domestic and international economy remain moderate during the year.

# BALANCE OF PAYMENTS

In 1990 there was a continuation of tight monetary and fiscal measures along with selective policy instruments aimed at export expansion and diversification. Against this background, there were improvements in the Current and Capital Accounts as well as the Net International Reserves.

## The Current Account

The Current Account deficit for 1990 was US\$237.7 million, a small improvement on the US\$257.3 million deficit in 1989. The trade balance improved by 11.8 percent and net earnings from foreign travel by 23.9 percent relative to 1989. Net transfers decreased from US\$322.9 in 1989 to US\$243.0 million in 1990. The decrease occurred largely as a result of reduced inflows during the three-month period in which there was no IMF agreement.

## Merchandise Trade

The substantial decline in the rate of growth of imports contributed to the decrease in the visible trade deficit.

Merchandise imports grew by a mere 1.6 percent in 1990 versus 25.6 percent in 1989. The visible trade deficit also narrowed because of the 12.7 percent growth in Merchandise exports to US\$1,126.5 million. However, the 1990 data suggest a 5.8 percentage point decline in the rate of growth of exports and attests to an underlying crisis in Merchandise Trade.

The performance of Merchandise Trade during the year under review can be attributed to several factors:

- Substantial devaluation of the Jamaican dollar.
- The maintenance of credit ceilings.
- Maintenance of the high interest rate policy.
- The maintenance of high tariffs.
- Increases in world oil prices.

The value of traditional exports increased by 12.7 percent to US\$868.9 million. However, the weight of bauxite and alumina (82.2 percent of total traditional exports) flatters the general performance of the country's export trade. Indeed, 1990 data suggest an increasing dependence on the Bauxite/Alumina sector. This failure in the structural adjustment is reinforced by the 12.7 percent decline

## Balance of Payments (1985 - 1990)

US\$ Million

Table 5

Categories	1985	1986	1987	1988	1989	1990	% Increase 1989/88
Exports (f.o.b.)	568.6	589.7	708.8	843.4	999.7	1,126.5	12.7
Imports (c.i.f.)	1,143.6	969.2	1,234.3	1,449.4	1,820.8	1,850.8	1.6
Balance of Trade	-575.0	-379.5	-525.5	-606.0	-821.1	-724.3	-11.8
Services (net)	38.3	198.1	205.5	424.1	240.9	243.6	1.1
Foreign Travel	375.3	481.0	551.2	470.6	538.7	667.4	23.9
Investment Income	-305.7	-321.7	-401.8	-407.5	-441.3	-540.5	22.5
Other Services	-31.3	38.8	56.1	361.0	143.5	116.7	18.7
Balance on Goods and Services	-536.7	-181.4	-320.0	-181.9	-580.2	-480.7	-17.1
Transfers (net)	221.2	148.1	171.6	271.2	322.9	243.0	24.7
Private	153.2	111.6	117.2	146.61	135.2	127.5	-5.7
Official	68.0	36.5	54.4	124.6	187.7	115.5	-38.5
Current Account Balance	-315.5	-33.3	-148.4	89.3	-257.3	-237.7	7.6
Net Capital Movements	388.1	9.3	356.6	53.9	86.9	305.5	255.0
Changes in Reserves (minus = increase)	72.6	24.0	208.2	143.2	1,70.4	-70.8	-141.5

SOURCE: Bank of Jamaica

in non-traditional exports in 1990 relative to 1989. This decline follows four consecutive years in which non-traditional exports have been relatively low and underscores the need for an overall increase in production and productivity.

## **Services**

The Services Account maintained a favourable balance reaching a level of US\$243.6 million in 1990, an increase of 1.1 percent over 1989. The sum represents a 23.9 percent increase in net foreign travel, a 22.5 percent increase in net investment income payments and a 18.7 percent decline in Other Services (net). Net income payments in 1990 moved to US\$540.5 million from US\$441.3 million in 1989 as a result of higher interest payments on government direct, government-guaranteed and Bank of Jamaica debt, and repatriated profits relating to bauxite companies.

The 18.7 percent decline in Other Services (net) reflects a reduction in commission fees and, more specifically, earnings from Free Zone activities.

Net foreign travel receipts increased by 23.9 percent to US\$667.4 million and reflects the continued buoyancy of the tourism sector. Total visitor arrivals for 1990 increased by 6.3 percent to 1.24 million while receipts increased by 15.2 percent to US\$700 million.

## **Transfers**

Net Transfers dropped by 24.7 percent to US\$243.0 million with official transfers declining by 38.5 percent to US\$115.5 million. This decline in net transfers can be attributed to reduced inflows of both Government direct and Government-guaranteed loans.

## **The Capital and Foreign Reserves**

The balance on the Capital Account at December 1990 was US\$308.5 million, 255.0 percent above the previous year. Foreign exchange reserves at December 1990 reflected an improvement of US\$70.8 million in contrast to a deterioration of US\$170.4 million in 1989.

# LASTING Relationships

At GRACE, KENNEDY, we are firm believers in establishing a lasting relationship. It is a philosophy to which we adhere. Building a relationship on Trust, Respect, Honesty and the principle of doing the "Right Thing."

This requires an ongoing investment in time and effort.

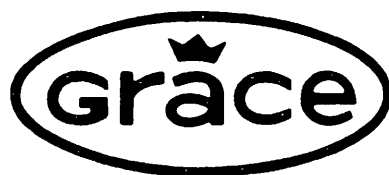
To better understand the needs and requirements of YOU our customers and consumers.

And when there is a problem, as will happen in any relationship, to listen and to respond.

With concern and commitment to doing the Right Thing.

**IT IS DOING THE "RIGHT THING" THAT  
CREATES LASTING RELATIONSHIPS.**

**Some things should never change.**



we care

# EXTERNAL TRADE

The deficit on the Merchandise Trade account for 1990 was US\$724.3 million compared with US\$820.4 million in 1989. This reflected expenditure of US\$1,850.8 million on merchandise imports and earnings of US\$1,126.1 million derived from merchandise exports. Imports increased by a mere US\$30.7 million or 1.3 percent whereas exports increased by US\$136.8 million or 12.7 percent.

This changing picture is perhaps reflective of attempts to achieve a market determined exchange rate. This led to a 15.2 percent depreciation in the exchange rate (from 7.00 to 8.25). However, given that the demand for both imports and exports in the Jamaican context is relatively inelastic, the long run impact of this policy tool is expected to be negligible. Therefore, the relative improvement in the balance of trade is only a transient reaction to the vicissitudes of the market.

The total value of Jamaica's trade in 1990 increased by a mere 5.6 percent to US\$2,977.3 million. This represents a 17.4 percent decrease in the growth rate of trade. Of the total increase in trade value in 1990, exports accounted for 37.8 percent and imports 62.2 percent.

## The Composition of Merchandise Imports Relative to 1989

Raw Materials accounted for 51.1 percent of total imports as against 48.3 percent in 1989. Capital Goods accounted for 31.0 percent in 1990 versus 30.7 percent in 1989 and Consumer Goods for 17.9 percent versus 21 percent in 1989.

The improved trade performance was largely attributable to the following:

- an upturn in the market for bauxite and alumina;
- increased prices in the international commodities market;
- the re-opening of Alpart.

However, the external sector, given the high import propensity and reliance on banking credit for working capital by the business community was hampered by the following:

- a 15.2 percent depreciation in the exchange rate against the US dollar;
- the maintenance of a high interest rate policy coupled with credit ceilings;
- substantial increases in international oil prices;
- the introduction of a 50 percent consumption surcharge on luxury items.

## Structure and Composition of the Merchandise Trade

A combination of upward price movements and increased trade volume resulted in an increase in the total value of visible trade which amounted to US\$2,977.3 million, up from US\$2,796.6 million in 1989. Merchandise exports increased by 16.1 percent or US\$156.2 million.

Traditional exports accounted for 77.1 percent of total merchandise exports in 1990 compared to 71.2 percent in 1989 and 67.6 percent in 1988. This trend implies that Jamaica is once again increasing its dependence on traditional exports, and means a failure of the structural adjustment program, which sought to diversify the productive base of the economy. Adjustments in the exchange rate may have adversely affected non-traditional exports in so far as the major traditional exports benefit from quotas and guaranteed markets and essentially operate outside the price mechanism, whereas non-traditional exports enjoy no privileges of that nature.

Alumina and Bauxite remained Jamaica's main export commodities. However, alumina's share of the total value of exports has decreased by 9.0 percent and bauxite's share by 9.2 percent. Sugar's share also declined by 3.2 percent.

<b>Merchandise Trade</b> (US\$M)					<b>Table 6</b>	
	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>
Merchandise Imports	1,143.6	969.2	1,234.3	1,449.4	1,820.1	1,850.8
Merchandise Exports	568.6	589.7	708.8	843.4	999.7	1,126.5
Trade Balance	-575.0	-379.5	-525.5	-606.0	-820.4	724.3

SOURCE: Bank of Jamaica

Non-traditional exports as a percentage of total exports declined from 26.3 percent in 1989 to 19.8 percent in 1990. The Miscellaneous Manufactured Goods category (which includes 807-CMT operations) registered a decline of 6.8 percentage points in its share of total non-traditional exports relative to 1989.

## Exports

Exports of bauxite declined by 7.1 percent relative to 1989, whereas alumina registered an increase of 28.6 percent. Sugar also registered an increase in nominal terms of 8.8 percent. Other traditional commodities, however, recorded a substantial increase of 39.0 percent relative to 1989. This was dominated by a 107.1 percent increase in the Citrus and Citrus Products category. Exports of Coffee and Coffee Products declined by 5.9 percent. This is perhaps reflective of the fact that this sub-sector had not fully recovered from the ravages of the September 1988 hurricane Gilbert.

## Imports

Merchandise imports increased by US\$30.7 million or 1.7 percent to US\$1,850.8 million. Of this increase, Capital Goods and Raw Materials accounted for 2.4 percent and 7.9 percent respectively, relative to 1989, whereas

Consumer Goods declined by 13.6 percent. The marginal growth in both the Capital Goods and Raw Materials categories reflects the tight monetary policy maintained throughout the year.

The 7.9 percent increase in the Raw Material category can be attributed to a 50.9 percent increase in the value of Fuel imports resulting from the crisis in the Middle East and the attendant increases in oil prices.

The decline in the Consumer Goods category also reflected a decline in the importation of motor vehicles. The Consumer Durables sub-group declined by 17.6 percent relative to 1989.

With regards to Capital Goods imports, the Construction Materials sub-group declined by 37.8 percent. It should be noted however, that though the data reflected a downturn in the Construction sector, the 1989 data included materials imported to assist in the post-hurricane recovery period.

The Transport Equipment sub-group, which grew by 51.5 percent, includes the importation of two aircraft valuing US\$57.0 million. Therefore it can be said that the extraordinary values of some imports have only disguised the underlying crisis which exists in the external accounts.

## Composition of Merchandise Imports

Table 7

US\$'000

Categories	1987	1988	1989	1990	Percent Change 1990/89
All Categories	1,234.2	1,449.4	1,820.1	1850.8	1.7
Consumer Goods	234.7	286.9	383.8	331.7	13.6
Food	94.7	124.5	155.0	125.3	-19.2
Other Non-Durables	96.9	105.2	140.7	133.8	-4.9
Durable	43.0	57.1	88.1	72.6	-17.6
Raw Materials	652.7	704.3	875.7	945.0	7.9
Fuels	235.1	192.1	265.5	400.7	50.9
Food	102.3	119.6	134.1	108.2	-19.3
Other	315.3	392.6	476.1	436.1	-8.4
Capital Goods	346.9	458.2	560.6	574.1	2.4
Construction Materials	79.8	138.1	161.0	100.2	-37.8
Transport Equipment	61.0	117.6	101.8	154.2	51.5
Other Machinery & Equipment	200.2	195.8	289.3	310.4	7.3
Other Capital	5.9	6.7	8.5	9.3	7.1

SOURCE: Statistical Institute of Jamaica

## CARICOM Trade

The total value of Jamaica's trade with CARICOM in 1990 was US\$159.8 million which represents a 0.5 percent increase over 1989. As a percentage of total trade, CARICOM trade accounted for 5.4 percent, down from 5.7 percent in 1989. The decline in CARICOM trade is partially attributable to Jamaica's unilateral decision to utilize hard currency in regional transactions.

CARICOM imports declined by 2.9 percent in 1990 to US\$87.8 million whereas exports increased by 5.1 percent to US\$72.0 million. As a result of Jamaica's trade activities with CARICOM, the trade deficit improved by US\$5.9 million over 1989 to US\$15.8 million.

## Trade Constraints

The main objective of the General Agreement on Tariffs and Trade (GATT) is to liberalize world trade. The GATT's Most Favoured Nation (MFN) rule requires that if a country lowers its tariff on one import item, the same will apply to imports of that item from whatever source. The developing countries are exempt from MFN rule; they can retain their trade barriers while gaining greater access to markets of the developed countries.

The apparent advantage to developing countries con-

ceals the great danger to the process of building efficient economies. Protectionist tariff barriers distort domestic prices relative to world prices and impose a tax on exports. Protectionism involves a net cost to the whole economy of a country while it creates specific gains for the protected industry. Developing countries need 'protection' offered by free trade, not bilateral trade agreements with the developed world, which offer a form of restricted 'free trade' with non-tariff instead of tariff barriers. Non-tariff barriers to free trade include restrictions on sourcing of raw materials and on transportation, or clauses in the agreements which allow the trade concessions to be withdrawn when the rising quantity and quality of a developing country's products threaten the market shares of the developed country's producers.

## Preferential Constraints

The EEC/ACP conventions, the CBI, CARIBCAN, and the CARICOM treaty are all discriminatory; they contain restrictions, protocols, and exemptions which reflect the double-edged concession-with-protection which negate the potential of free trade. The almost totally free trade agreement between the US and Canada violates the GATT's MFN rule, but is not illegal. It could further result in displacement of trade especially for those items imported in both markets under bilateral trade agreements with non-tariff barriers.

<b>Traditional Exports (1988-1990)</b>				<b>Table 8</b>
US\$'000				
	1988	1989	1990	% Change 1990/89
Total Traditional Exports	570.4	712.1	868.9	12.7
Bauxite	104.9	111.0	103.1	-7.1
Alumina	312.3	475.3	611.2	28.6
Gypsum	0.6	0.3	0.2	-33.3
Sugar	91.9	67.1	73.0	8.8
Bananas	15.7	19.3	33.9	75.6
Citrus & Citrus Products	8.6	4.2	8.7	107.1
Coffee & Coffee Products	10.7	10.1	9.5	-5.9
Cocoa & Cocoa Products	6.9	4.1	6.5	58.5
Pimento	5.1	4.6	5.7	23.9
Rum	13.7	16.1	17.2	6.8

SOURCE: STATIN

## Composition of Non-Traditional Exports (US\$M)

Table 9

SITC Categories	1987	1988	1989	1990
Total Non-Traditional Exports	224.7	241.7	255.0	222.6
Food	30.8	30.3	32.5	36.9
Beverages and Tobacco	22.8	23.0	19.9	21.2
Crude Materials	6.1	5.4	14.0	8.0
Mineral Fuels	13.7	18.8	16.3	16.6
Animal & Vegetable Oils & Fats	0.5	0.0	0.0	0.0
Chemicals	20.7	20.0	23.2	22.8
Manufactured Goods	8.9	13.6	18.4	17.0
Machinery and Transport Equipment	3.1	4.7	4.4	5.1
Miscellaneous Manufacturing Goods	116.1	125.9	126.3	95.0
Miscellaneous Commodities	2.0	-	-	-

SOURCE: Statistical Institute of Jamaica.

## Outlook

Jamaica's exchange rate system and trade have been liberalized somewhat in recent years. The government has stated its intention to advance the process of liberalization, but this will be constrained by the adoption of a fixed exchange rate regime.

Trade reforms expected to be implemented in the me-

dium term will include further reductions of Customs Tariffs, elimination of remaining tariff exemptions, reference prices and import monopolies and strengthening of the Customs and anti-dumping procedures.

The proposed General Consumption Tax will replace several imposts including Customs Duty and Additional Stamp Duty.

## Jamaica-CARICOM Trade (US\$M)

Table 10

SITC Sections	Exp	Imp	Exp	Imp	Exp	Imp
All Sections	67506	90772	71999	37103	6.1	-4.0
Food	11457	21327	12103	22028	10.9	3.3
Beverages and Tobacco	4989	12166	4878	10468	-2.2	-14.0
Crude Materials	589	807	1724	677	188.3	-16.1
Mineral Fuels	7449	5967	9547	3945	28.2	-33.9
Animal & Vegetable Oils & Fats	6	4061	5	3759	-16.7	-7.4
Chemicals	16284	15331	17391	17760	6.8	15.8
Manufactured Goods	14386	23447	12256	21414	-14.8	-8.1
Machinery and Transport Equipment	3166	5351	3831	4419	21.0	-17.4
Miscellaneous Manufacturing Goods	9171	2315	9664	2633	5.4	13.7

SOURCE: Statistical Institute of Jamaica.



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# MONEY AND BANKING

In 1990 as in 1989 the central bank made use of all its available policy instruments, including increases in the cash reserve and liquid asset ratios of the commercial banks, open market operations (treasury bills and certificates of deposits et al), credit ceilings, an amended exchange rate regime among others, in an effort to ensure consistency with overall economic objectives.

In the first quarter, the Government entered into a new fifteen month stand-by agreement with the International Monetary Fund (IMF), covering the period January 1, 1990 to March 31, 1991. Given the history of deviations from programme targets, monetary policy sought to further contain the growth in aggregate demand, stabilize the foreign exchange market and slow the growth rate of domestic inflation. This was consistent with the broader balance-of-payments objective.

These policy objectives in the main, however, failed to materialize. Inflation grew to 29.8 percent, the exchange rate moved from J\$6.50 per US\$1 at December 1989 to J\$8.14 per US\$1 at December 1990 at the weighted inter-bank rate. The effective rate was approximately J\$9.00 per US\$1. This coupled with the curtailment of liquidity led not only to a decrease in aggregate demand

but to a decline in real output. This was compounded by an increase in the average loan rate in 1990 by 5.03 points to 36.03 percent relative to 1989.

Against the background of continued demand management, the Government introduced several initiatives to enhance market forces in the economy, eliminate distortions in the financial system and provide foreign currency inflows. By allowing commercial banks to determine their interest rate structure through the abolition of the statutory floor on savings deposit rates and also by allowing them to determine their own banking hours, the monetary authorities reduced their regulatory role in the operations of financial institutions.

In an effort to improve the supply of foreign exchange by attracting flight capital and foreign exchange saving balances held externally, the Government introduced foreign currency accounts. These, known as 'A' and 'B' Accounts, are primarily geared to non-residents, including corporate entities not conducting business in Jamaica, and are denominated in any freely convertible foreign currency ('A' Accounts) or in Jamaican dollars, but freely convertible on demand ('B' Accounts).

## Money Supply 1975-1990

J\$Million

Table 11

Year	M1	Time Deposit	Savings Deposit	Total	M2 = M1 + Total Quasi-Money
1975	312.8	334.6	331.2	665.8	978.6
1976	343.0	363.2	349.6	712.8	1,055.8
1977	510.2	236.5	451.4	687.9	1,198.1
1978	494.7	345.2	519.0	864.2	1,358.9
1979	541.1	357.8	595.2	953.0	1,494.1
1980	647.4	210.6	687.7	898.3	1,545.7
1981	687.1	417.3	814.0	1,231.3	1,918.4
1982	729.2	614.0	1,016.0	1,630.0	2,359.2
1983	884.3	975.0	1,122.2	2,097.2	2,981.5
1984	1,012.4	1,134.1	1,304.7	2,438.8	3,451.2
1985	1,210.4	1,091.7	2,007.5	3,099.2	4,309.6
1986	1,667.6	1,183.3	2,646.8	3,830.1	5,497.7
1987	1,874.8	1,119.4	3,378.1	4,497.5	6,372.3
1988	2,908.8	1,625.5	4,365.8	5,991.3	8,900.1
1989	2,739.4	1,843.5	4,882.7	6,726.2	9,465.6
1990	13,486.3	2,281.8	5,499.0	7,780.8	11,267.1

## Money Supply

Narrowly defined money, M1, currency in the hands of the public plus demand deposits, increased by 27.3 percent compared with 1989. The increase of M1 in 1990 may be partially attributed to an expansion in demand deposits which represents a normalization in the growth pattern following contractions in the post-hurricane period when deposits were liquidated to finance increased expenditure. The expansion in M1 balance contrasted with a \$169.4 million (or 5.82 percent) decline in 1989.

Broadly defined money, M2 (M1 plus time deposits plus savings deposits) grew by 19.03 percent in 1990. This resulted from a 12.7 percent growth in savings deposits and a 23.8 percent growth in time deposits. Compared with 1989, the rate of growth of M2 increased by 12.68 percentage points. The transactions demand, estimated as the sum of the growth rate of GDP and the CPI, increased by 11.9 points relative to 1989. This was largely attributable to a high rate of inflation.

## Commercial Bank Loans and Advances

Outstanding loans to commercial banks as at December 1990 increased by 20.8 percent to J\$8,997 million. Construction and land development secured the largest share of loans and advances in 1990 (22.9 percent). This was followed by Manufacturing and the Consumer categories which accounted for 17.1 and 17.0 percent respectively of total loans and advances.

The increase in loans and advances in 1990 reflected continued strong private sector demand for credit relative to the public sector. It is also linked to devaluations of the Jamaican dollar and the high import intensity of the economy.

Furthermore, given that there has been a decline in real terms for loans and advances, the data suggest a contraction in the capacity of the banking sector to extend credit in the face of higher liquidity ratios and credit ceilings.

## Commercial Bank Liquidity

Despite attempts to mop up liquidity through Certificates of Deposit (CDs) and other government paper, the financial system remained highly liquid throughout 1990. At the end of December 1990, the average actual liquidity ratio of commercial banks was 35.05 percent versus 36.16 percent at December 1989.

The relatively high liquidity is mainly attributable to two factors:

1. a softening of loan demand, owing to the maintenance of a high interest rate regime;
2. maintenance of credit ceilings.

Monetary policy in 1990 was designed to stem the switching from money market instruments to credit. In fact, commercial banks continued to hold the major portion of their liquid assets as deposits with the Bank of Jamaica.

<b>Loans and Advances by Sector (1984 - 1990)</b>							<b>Table 12</b>
J\$Million							
Sectors	1984	1985	1986	1987	1988	1989	1990
Agriculture	401.0	496.9	416.1	479.6	668.6	702.1	879.7
Manufacturing	681.1	726.1	822.3	978.8	1,216.5	1,462.7	1,535.7
Construction	617.4	612.2	636.9	897.4	1,319.8	1,729.1	2,060.6
Mining	10.0	6.4	9.4	25.6	17.0	33.1	31.8
Tourism	125.4	184.8	236.1	321.6	451.0	612.4	748.6
Transport	334.3	390.9	446.5	591.5	762.7	1,117.4	1,088.4
Consumer Oriented	441.8	400.8	464.9	568.9	691.6	997.7	1,529.6
Government Services	44.0	141.9	677.9	890.6	436.8	577.7	778.1
Other	90.8	88.1	111.8	141.8	202.0	214.2	344.7
<b>TOTAL</b>	<b>2,745.8</b>	<b>3,048.1</b>	<b>3,821.8</b>	<b>4,895.8</b>	<b>5,766.0</b>	<b>7,446.4</b>	<b>8,997.2</b>

SOURCE: Bank of Jamaica.

## Interest Rates

In any stabilization policy, the interest rate is a significant policy variable. During 1990, the classical 'knife edge' problem was evident as the Government grappled with the problem of establishing an appropriate interest rate structure conducive to both savings and investment. In an attempt to facilitate the market determination of interest rates, the monetary authorities removed the statutory floor on savings deposit rates. This initiative, however, must be viewed in the context of the maintenance of the withholding tax and the continuation of open market operations by the central bank. In fact, interest rates on Treasury Bills ranged between 25.8 percent and 28.7 percent in 1990. At December 1990, the average weighted rate on Certificates of Deposits was approximately 28 percent. Indeed, a large volume of resources was channeled through non-bank financial intermediaries. This, however, stemmed from the relatively high liquidity in the money market which these institutions were in a good position to utilize because of their competitive interest rate structure. Consequently, commercial bank loan rates have remained high. At the end of the year under review, the overall average weighted loan rate was 36.03 percent.

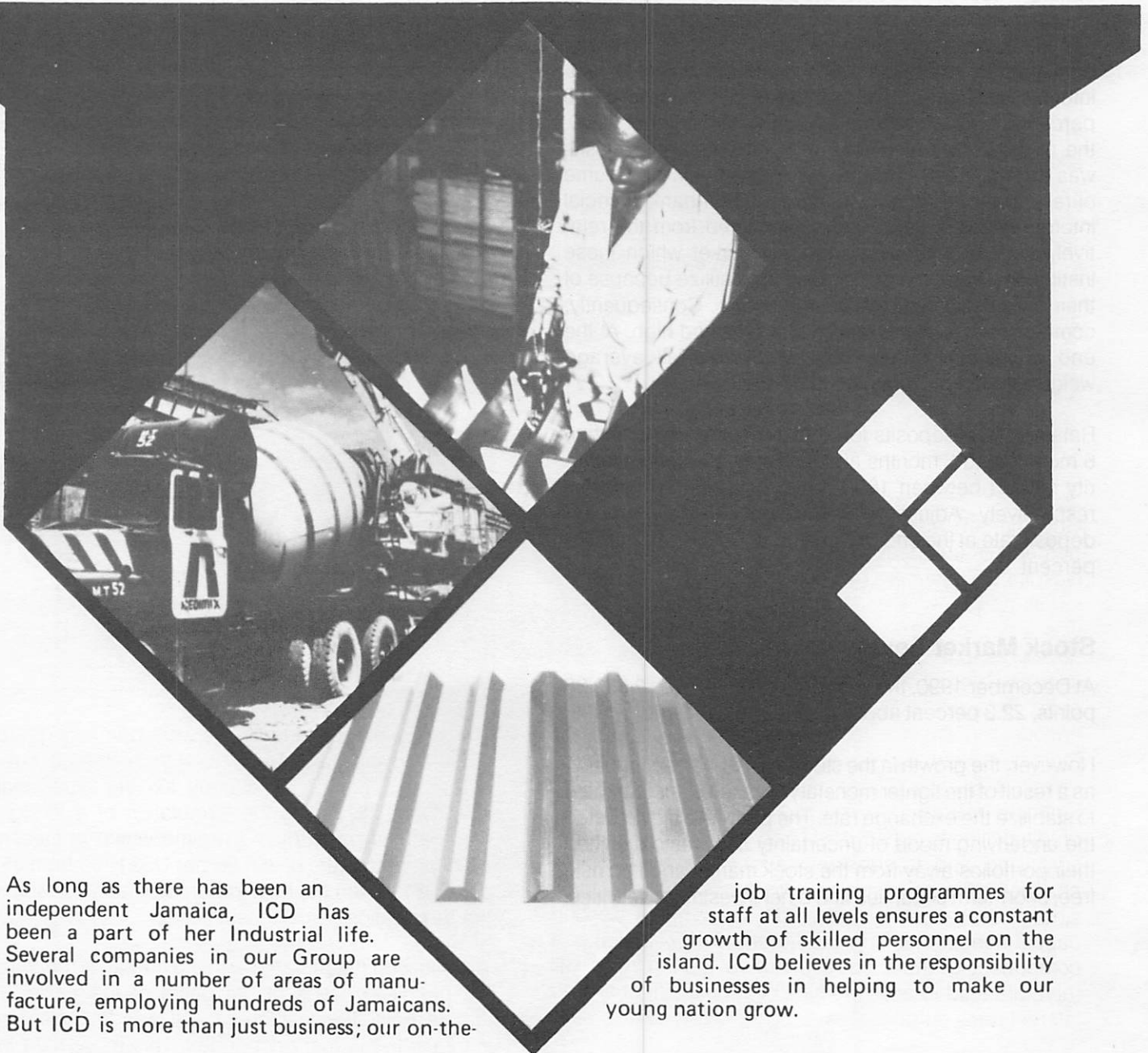
Rates on time deposits for both 3 months and less than 6 months and 6 months and less than 12 months maturity ranged between 18 - 28 percent and 17.2 percent respectively. Adjusting for inflation the real weighted deposit rate at the end of December 1990 was minus 5.3 percent.

## Stock Market Development

At December 1990, the stock market index was 2,539.36 points, 22.3 percent above the index at December 1989.

However, the growth in the stock market was constrained as a result of the tighter monetary measures implemented to stabilize the exchange rate. The performance reflected the underlying mood of uncertainty as investors shifted their portfolios away from the stock market and into risk-free, short-term securities and other investment activities.

# Industry: Behind the scenes



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# INFLATION

The inflation rate for the 1990 calendar year was 29.8 percent as measured by the Consumer Price Index on a point-to-point basis. The index moved to 166.1 at the end of December 1990 from 128.0 at December 1989. On the average, the inflation rate was 24.4 percent compared to 14.3 percent in 1989. (The point-to-point measure is used for comparison unless otherwise stipulated).

## Internal Factors

The inflation rate for 1990 was the highest in more than six years and can be primarily attributed to the following:

1. A 15.2 percent depreciation in the value of the Jamaican currency vis-a-vis the U.S. dollar.
2. A substantial increase in money supply coupled with lower levels of production.
3. Deregulation of the petroleum trade.
4. The introduction of a 50% consumption surcharge.
5. The maintenance of credit ceilings and a high interest rate policy.
6. An increase in bus fares.
7. Increases in utility rates.

Government's attempt to restrict the rate of inflation to 15 percent through demand management strategies failed. Despite the extensive use of monetary and fiscal instruments and the maintenance of wage guidelines, there was a significant increase in money supply which did not correspond to any increases in production. In fact, in its pursuance of open market policies (offers of Certificates of Deposits, Treasury Bills etc.), the Government encouraged the maintenance of the high interest rate regime. Indeed, at year end, the upper limit on Commercial loans was 50 percent with expectations high for further increases. This, coupled with the maintenance of credit ceilings, led to cost-push inflation. This is not surprising and is substantiated by the transmission channel between monetary instruments and the supply side of the economy via credit financing of working capital needs. This implies that the cost of credit is a component of input costs. Mark-up pricing rules will therefore lead to an immediate cost-push effect of high interest rates on prices.

Also, under monopolistic market structures, as obtains in the Jamaican economy, high cost of credit not only leads to a short-run cost-push effect on prices, but also to a reduction in real output since real input costs would have risen. The interest rate picture was further distorted by continual increases in the liquidity ratios.

## Rate of Inflation 1973-1990

**Table 13**

Year	Consumer Price Increase Point -To-Point
1973	28.8
1974	22.1
1975	11.4
1976	8.3
1977	16.1
1978	47.1
1979	24.4
1980	25.0
1981	4.6
1982	6.5
1983	16.7
1984	31.2
1985	23.0
1986	10.4
1987	8.4
1988	8.8
1989	17.2
1990	29.8

The above-mentioned policies were primarily geared at restraining the demand for foreign exchange but they served to enhance an already thriving black market. This eventually led to the formulation of a foreign exchange inter-bank trading regime which at December 1990 yielded a rate of J\$8.25 per US\$1, up from J\$7.00 per US\$1. Given the high import propensity in Jamaica, the devaluation helped fuel inflation.

The situation deteriorated with the partial deregulation of the petroleum trade at the onset of the crisis in the Middle East. By year end there was a 64.5 percent increase in the fuel price index. This movement in the fuel price index is also reflective of a 37.6 percent increase in electricity rates.

Fiscal policies in 1990 were aimed at containing aggregate demand and hence, inflation, through a continued reduction in the budget deficit. This was to be accom-

plished by raising revenue and reducing expenditure. It was in an attempt to increase revenue that a 50 percent consumption surcharge was imposed on particular goods which were deemed luxuries. These items included refrigerators and stoves and the surcharge is no doubt reflected in the 19.5 percent increase in the Household Furnishing and Furniture category.

### External Factors

The Middle East conflict which triggered higher oil prices contributed much to the significant rise in the rate of inflation. The openness of the Jamaican economy makes it vulnerable to the economic performance of its main trading partners so that imported inflation also played a major rôle in the jump in inflation in 1990.

**Consumer Price Index – (Point-to-Point) 1988-1990**

**Table 14**

Item	1988	1989	1990	Index over 1989	% Change Weight
<b>ALL GROUPS</b>	109.2	128.0	166.1	29.8	100.0
<b>Food and Drink</b>	112.1	135.5	174.8	29.0	55.63
Meals away from home	109.7	132.4	169.6	28.1	
Meat, poultry and fish	102.7	125.6	173.8	38.3	
Dairy products, oils and fats	105.2	133.2	177.2	33.1	
Baked products, cereal & breakfast drink	102.6	129.7	167.5	29.2	
Starchy food	174.4	203.0	219.9	8.3	
Vegetable and fruits	119.4	130.1	175.5	34.8	
Other food and beverages	105.3	127.8	147.0	15.0	
<b>Fuels and Other Household Supplies</b>	105.1	117.3	167.6	42.8	7.35
Household supplies	102.8	117.4	154.1	31.3	
Fuels	109.3	117.2	192.8	64.5	
<b>Housing</b>	107.7	116.0	160.7	38.5	7.86
Rental	106.0	109.2	123.9	13.5	
Other housing expenses	108.3	118.6	172.8	45.7	
<b>Household Furnishing and Furniture</b>	107.4	118.1	141.2	19.5	2.83
Furniture	105.8	120.3	147.7	22.8	
Furnishings	108.1	117.5	139.0	18.4	
<b>Healthcare &amp; Personal Expenditure</b>	105.4	115.3	149.2	29.4	6.97
<b>Personal Clothing, Footwear &amp; Accessories</b>	108.9	124.0	152.7	23.1	5.07
Clothing materials, Ready-made clothing and Accessories	106.6	115.9	130.0	12.1	
Footwear	112.2	133.3	165.3	24.0	
Making-up and repairs	114.0	134.9	162.7	20.6	
<b>Transportation</b>	101.3	128.3	164.2	28.0	6.44
<b>Miscellaneous</b>	105.7	117.5	149.8	27.5	7.85

SOURCE: Statistical Institute of Jamaica

The average price per barrel of oil increased from US\$19.60 in 1989 to US\$20.00 in 1990, an increase of 3.1 percent. These prices however, were not so much a reflection of real shortage of supply as by the perception of a shortage of crude oil in the world oil markets. The significant increases in oil prices to Jamaica manifested itself in higher utility rates, higher prices for gasoline and other petroleum products, with the attendant multiplier effects throughout the economy.

## CPI By Category

The Consumer Price Index can be broken down in eight categories:

1. Food and Drink
2. Fuels and Other Household Supplies
3. Housing and Other Housing Expenses
4. Household Furnishings and Furniture
5. Healthcare and Personal Expenditure
6. Personal Clothing, Footwear and Accessories
7. Transportation
8. Miscellaneous expenses

Food and Drink increased by 29.0 percent in 1990 relative to 1989. The main contributors to this increase were Meat Poultry and Fish (38.3%), Dairy Products, Oils and Fats (33.1%), Vegetables and Fruits (34.8%), Baked Products, Cereals and Breakfast Drinks (29.2%) and Meals away from home (28.1%). An absence of price controls, removal of subsidies and a realignment of domestic prices to reflect international prices were some of the factors influencing these increases. The decline in purchasing power, however, was marginally offset by the increase in the wage guidelines from 10 percent to 12.5 percent. Prices were adversely affected by higher energy costs, imported inflation and the depreciating value of the Jamaican dollar.

The category, Fuels and Other Household Supplies, jumped by 42.8 percent and was influenced mainly by the fuel sub-category which increased by 64.5 percent. This is attributable to higher oil prices as well as the deregulation of the petroleum trade (which facilitated greater margins as well as increased tax revenue).

Housing and Other Housing Expenses increased by 38.5 percent. This was strongly influenced by the 45.7 percent increase in the sub-category, Other Housing Expenses, which would include higher insurance premiums, as well as higher maintenance costs. The Household Furnishing and Furniture category, which grew by 19.5 percent, was dominated by a 22.8 percent

increase in the furniture sub-category. This was influenced by the periodic shortages of lumber as well as higher international prices.

The category Healthcare and Personal Expenditure increased by 29.4 percent in 1990 compared with a 9.4 percent increase in 1989. This category has been influenced by increases in health insurance premiums as well as by increased user fees.

The Personal Clothing, Footwear and Accessories category grew by 23.1 percent. This can be attributed to very low domestic production and hence an increasing reliance on imports. It mirrors directly the impact of the devaluations as well as the recession in the world economy.

The 28 percent increase in Transportation mirrors the increases in bus fares granted during 1990. These increases, however, did not necessarily correspond to an improvement in service.

## Changes in Weights in CPI

The inflation rate does not take account of all price changes in the economy. The CPI is derived from a 'basket' of goods and services purchased by householders with an income of \$24,000 or less a year.

It should be noted that the price movements recorded above are based on the revised index published by the Statistical Institute of Jamaica. The new series was derived from data obtained from a Household Expenditure Survey carried out by STATIN in 1984 and has a base of January 1988. The previous series had a base of January 1975 and utilized findings from a survey conducted in the 1971/72 period. The revised series, although similar to the previous series, differs from it in the following respects:

1. In the revised index, two sub-categories have been added to 'Food and Drink':
  - a) baked products, cereals and breakfast drinks;
  - b) fruit and vegetables.
2. In the 'Miscellaneous Expenses' category, two sub-categories have been removed, namely:
  - a) recreation expenses;
  - b) other miscellaneous expenses.
3. The revised CPI now has approximately 213 commodities, as compared with 274 from the previous series.
4. The weight of each category has also been revised.



Between the household expenditure surveys in 1972 and 1984, the percentage share of total expenditure in food and drink, household supplies, and transportation categories increased. Their combined weights in the CPI moved from 63.27 to 71.42 at the expense of clothing (down 2.08 points) and personal expenses (down 1.46 points). Surprisingly, the weight for housing has decreased from 8.87 to 7.86. In spite of the revision of the index, therefore, the GDP deflator may well be a more reliable measure of price movements in the economy.

## **Outlook**

According to PSOJ estimates, inflation as measured by the CPI is expected to be upwards of 20 percent for calendar year 1991. This calculation is based on the expected introduction of the General Consumption Tax and the continuation of stringent demand management policies. This estimate is also contingent on stability in world oil prices (at around US\$21 per barrel) and world interest rates. Should there be significant increases in world oil prices and interest rates, then the rate of inflation will approximate 25 percent or over.



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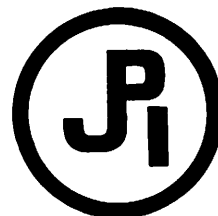
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# ENERGY

World oil production exceeded world oil demand by a mere 0.2 million barrels per day in 1990, slightly moderating the pressure on prices. Jamaica's imports of petroleum products increased by 13.5 percent to 18.5 million barrels in 1990. This represents the highest ever level of petroleum imports and partly reflects the increase in the energy intensity of the economy. It was estimated that the value of petroleum imports in 1990 was US\$373.4 million, a 30.8 percent increase over 1989. Fuel imports represented 20.2 percent of the total value of Jamaica's imports in 1990, 4.6 percent higher than 1989.

Consumption of petroleum products was approximately 16.5 million barrels in 1990 - a 6.4 percent increase over the previous year. The average price per barrel for petroleum moved from US\$17.5 in 1989 to US\$20.2 per barrel in 1990 - a 15.4 percent increase.

Fuel oil, which increased by 7.7 percent in 1990, accounted for the largest share (58.9 percent) of Jamaica's consumption of petroleum products, while the greatest change was in kerosene consumption, which declined by 37.5 percent. This remarkable downturn has been attributed to the reduction in the illegal practice of adulterating gasoline and automotive diesel with kerosene.

Similarly, consumption of lubricants and marine diesel declined by an average 21.8 percent, while asphalt and aviation gas fell by an average of 8.8 percent in 1990. Consumption of unleaded gasoline, which was introduced into Jamaica in June 1990, totalled 52,000 barrels.

The sub-sectoral usage of some petroleum products is outlined below.

## INDUSTRIAL SECTOR

### Bauxite and Alumina - Manufacturing

The bauxite/alumina industry's consumption of petroleum products increased by 107 percent in 1990, to 7.3 million barrels of fuel oil equivalent. This represents the highest annual consumption of fuel by the industry and resulted from heightened activity in the sector caused by the re-opening of ALPART as well as increased capacity utilization in existing plants.

### The Jamaica Public Service Company

Fuel consumption by JPS increased by 8.9 percent to 4.1 million barrels as against 3.8 million barrels in 1989. Increased JPS consumption resulted from expansion in electricity generation, and increased demand for diesel oil in the use of JPS gas turbines.

Total electricity sales by the JPS increased by 11.8 percent in 1990, as against 14.0 percent in 1989. Electricity sales to commerce and industry, which accounts for 58.2 percent of total sales, increased by 11.0 percent in 1990, while residential electricity sales increased by 12.2 percent.

### Cement, Sugar and Other Manufacturing

The cement industry's consumption of petroleum products declined by 46.58 percent in 1990, resulting primarily from the cement company's shift to a cheaper energy

## Imports of Petroleum Products (1986-1990)

Table 15

Item	1986	1987	1988	1989	1990	Percentage Change 1989/90
Volume (m.bbls) <sup>1</sup>	12.2	12.6	13.1	15.8	18.5	13.5
Value of Imports (US\$m)*	330.4	191.9	198.7	285.5	373.4	30.8
Fuel Imports as a %age of Total Imports	34.1	15.5	13.7	15.6	20.2	29.5
Average Price per Barrel (US\$)	27.1	15.1	15.1	17.5	20.2	15.4

\*m.bbls - Million Barrels

SOURCE: Ministry of Mining, Energy and Tourism

# **Jamaica's Consumption of Petroleum Products - 1987-90**

('000 Barrels)

**Table 16**

Energy Source	1987	1988	1989	1990	Percentage Change 1988/89	
Aviation Fuel	928	1,044	1,064	1,148	1,176	2.4
Aviation Gas	7	9	12	14	13	-7.1
Turbo Fuel	921	1,035	1,052	1,134	1,163	2.6
L.P.G.1	397	414	429	473	505	6.8
Kerosene	406	422	490	427	267	-37.5
Gasoline	1,569	1,682	1,760	1,947	1,999	2.7
Unleaded Gasoline	-	-	-	-	52	-
Auto Diesel	1,167	1,168	1,306	1,783	2,222	24.6
Marine Diesel	171	185	324	512	395	-22.9
Fuel Oil	6,460	6,789	6,774	9,037	9,730	7.7
Asphalt	64	80	162	95	85	-10.5
Lubricants	92	115	83	107	85	20.6
<b>TOTAL</b>	<b>11,254</b>	<b>11,899</b>	<b>12,392</b>	<b>15,529</b>	<b>16,516</b>	<b>6.4</b>

<sup>1</sup> L.P.G. - Liquid Petroleum Gas<sup>2</sup> Includes estimate fuel consumption for Alpart based on actual alumina production for 1989.**SOURCE:** Ministry of Mining, Energy and Tourism

source, coal. Consumption of petroleum products by the sugar companies totalled 321.1 thousand barrels in 1990, of which Bunker C accounted for 67.1 percent. Consumption of petroleum by other manufacturing enterprises totalled 238.5 thousand barrels.

## **Energy Intensity and Policy**

Energy demand projections are influenced by trends in energy intensity, which are measured by the ratio of energy consumption to output. Jamaica's energy intensity stood at 7.82 barrels of oil equivalent per thousand

# **Fuel Consumption by Bauxite/Alumina Companies (1986-1990)**

('000 Barrels)

**Table 17**

Product	1986	1987	1988	1989	1990
Aviation Gas	0.6	0.5	0.5	0.6	0.5
Premium Gas	2.7	3.2	2.5	2.4	5.9
Automotive Diesel Oil	79.6	76.0	78.2	73.9	171.2
Marine Diesel Oil	63.9	76.7	80.7	105.5	104.9
Kerosene Oil *	0.0	0.0	0.0	0.0	0.0
Fuel Oil - Bunker C	2,114.7	2,114.0	2,104.9	2,312.3	5,815.7
Fuel Oil - Low Vanadium	993.9	1, 208.9	1, 058.6	1, 028.3	1,188.8
<b>TOTAL</b>	<b>3,255.4</b>	<b>3,479.3</b>	<b>3,325.4</b>	<b>3,519.0</b>	<b>7,287.0</b>

\* Kerosene - Annual Consumption is less than (0.1) thousand barrels.

**SOURCE:** Ministry of Mining, Energy and Tourism

**Jamaica Public Service (JPS) Electricity Sales by Category**

In Megawatt Hours (MWH)

**Table 18**

Category	1986	1987	1988	1989	1990	%change 1990/89
Residential	367.7	417.1	406.9	468.0	525.1	12.2
Commercial & Industrial - Small	555.7	636.7	620.5	706.3	751.8	6.4
Commercial & Industrial - Large	171.6	164.9	145.8	158.5	208.5	31.6
Other	131.8	125.9	121.2	143.0	164.9	15.3
<b>TOTAL</b>	<b>1,226.8</b>	<b>1,344.6</b>	<b>1,294.0</b>	<b>1,475.7</b>	<b>1650.3</b>	<b>11.8</b>

**SOURCE:** Ministry of Mining, Energy and Tourism

dollars of Gross Domestic Product in 1989, and was projected to increase in 1990. The main factor in the equation is probably the Alpart alumina refinery. This plant is known to be the highest user of fuel per ton of alumina.

Jamaica is almost totally dependent on petroleum imports for the energy requirements of the economy. There is little evidence that all the discussion about energy conservation has had significant impact on the energy intensity of the Jamaican economy. It is to be doubted whether the installation of coal-fired equipment, such as the Caribbean Cement Company has done, can be

repeated by other heavy users of energy such as the alumina plants. The capital investment would be immense and the environmental impact of coal might be worse than oil. The use of solar energy, while it is not expected to have a large impact on the nation's energy costs, should nevertheless be encouraged by removing the present tax disincentives on the use of solar systems.

**Outlook**

Petroleum prices, which increased up to 1985, fell sharply especially after 1986 and then stabilised between 1987 and 1988. Since then however, petroleum prices have increased by an average annual rate of 15.7 percent. Price movements in the last quarter of 1990 and first quarter of 1991 were greatly influenced by the Gulf War. Prices rose steadily to around US\$32 a barrel and then began to fall gradually. Notwithstanding this likely development, it is extremely difficult to predict the course of prices, but the consensus among analysts is that producers are likely to stabilize prices around US\$20 per barrel even though capacity expansions have accelerated in OPEC countries. These factors should ease the upward pressure on oil prices for at least 1991-92 but may also fuel new OPEC quota wars.

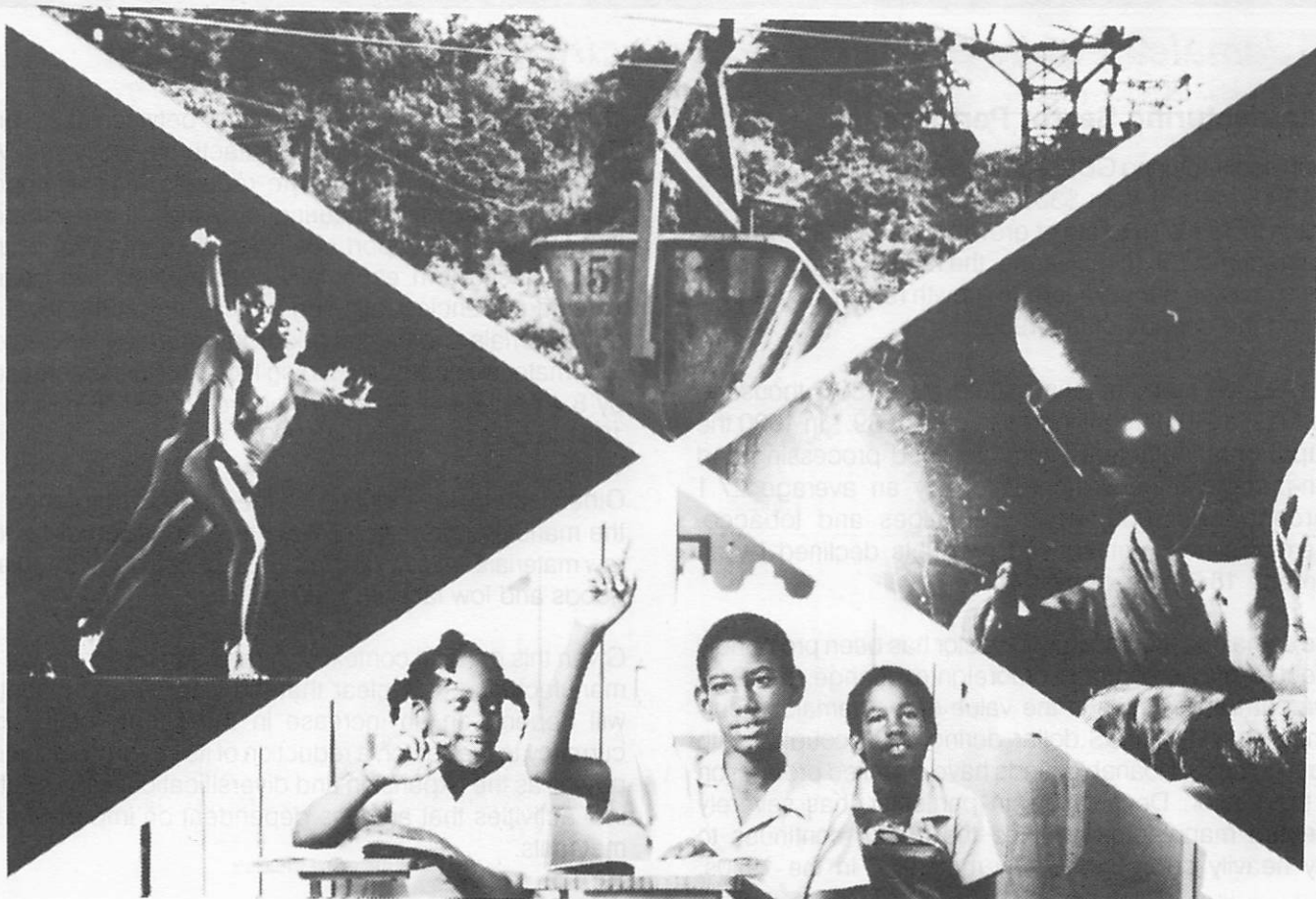
**Appropriate End Use Distribution  
Of Petroleum Products 1989-1990**

'000 BBLS

**Table 19**

	1989	1990
Retail	2,553	2,765
Aviation	1,120	1,177
JPS Co.	3,771	4,105
Cement	395	211
Bauxite	3,548	7,287
Other	2,410	1,234
<b>TOTAL</b>	<b>13,797</b>	<b>16,779</b>

**SOURCE:** Ministry of Mining & Energy



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# MANUFACTURING

## Manufacturing Sector Performance

Real manufacturing GDP recorded a 4.1 percent increase in 1990, moving from \$335.2 million in 1989 to \$369.8 million in 1990. This rate of growth is lower than the level attained in 1989. In real terms, the manufacturing sector has shown an annual average growth rate of 1.3 percent during the decade of the 1980s.

In 1990 the manufacturing sector had 136.5 thousand workers, a 2.0 percent increase over 1989. In 1990 the output of manufactured items for food processing and non-metallic minerals increased by an average 27.1 percent over 1989, while beverages and tobacco, chemicals and metal-based products declined by an average 18.3 percent over 1989.

The Jamaican manufacturing sector has been profoundly affected by the shortage of foreign exchange. The 24.9 percent depreciation in the value of the Jamaican currency against the US dollar during 1990 coupled with the high cost of loanable funds have curtailed production in the sector. Devaluation, in particular, has severely affected manufacturing since the sector continues to rely heavily on imported raw materials. In the 1970s,

import coefficients were estimated between 0.29 and 0.41 for a wide range of manufacturing activities. Although there has been some reduction in the import levels for some manufacturing industries, it is estimated that the average import coefficient (0.5 in 1990) of the sector has grown especially over the last five years. Foreign currencies rationing has restricted the level of raw materials and capital goods imported by the sector. Raw material imports (excluding food and fuel) decreased by 8.4 percent in 1990, moving from US\$476 million in 1991 to US\$436 million in 1990.

Other factors contributing to the poor performance of the manufacturing sector were the imposition of tax on raw materials, inflation in the foreign prices of intermediate goods and low labour productivity.

Given this general context of production performance in manufacturing, it is clear that the viability of the sector will depend on an increase in the supply of foreign currency to the sector, a reduction of its import coefficient, as well as the expansion and diversification of the sector into activities that are less dependent on imported raw materials.

## Value of Exports for the Manufacturing Sector 1988-1990

Table 20

US\$ Million

Category	1988	1989	1990	Percentage Change 1989/88
<b>Non-Traditional</b>	224.7	229.1	199.2	-13.1
Processed Foods	19.1	20.6	22.0	6.8
Beverages & Tobacco	23.0	19.9	21.2	6.5
Mineral Fuels	18.8	16.4	16.5	0.6
Chemicals & Chemical Products	20.1	23.1	22.7	-1.7
Manufactured Goods	13.1	18.5	16.9	-8.6
Machinery & Trans. Equipment	4.7	4.3	4.9	14.0
Miscellaneous Manufactures	125.8	126.3	95.0	-24.8
<b>Traditional</b>	116.2	83.7	102.7	22.7
Sugar	91.9	67.1	85.5	27.4
Rum	13.7	16.1	17.2	3.6
<b>TOTAL</b>	<b>340.9</b>	<b>312.8</b>	<b>301.9</b>	<b>-3.5</b>

SOURCE: Compiled from data supplied by STATIN

**Non-Traditional Manufactured Exports to CARICOM 1985-1990**  
US\$ Million **Table 21**

SITC Sections	1985	1986	1987	1988r	1989p	1990	% Change 1989/88
Processed Foods	5.7	7.3	8.8	10.7	8.4	8.1	-3.6
Beverages & Tobacco	4.6	4.8	5.1	5.9	4.8	4.5	-6.3
Mineral Fuels	2.6	3.3	2.7	6.7	7.9	9.5	20.3
Chemicals	11.9	11.8	13.1	14.5	16.6	18.7	-12.7
Manufactured Goods	6.0	5.3	6.2	9.7	14.5	12.1	-16.6
Machinery & Trans. Equipment	1.4	1.4	1.7	2.8	3.1	3.5	12.9
Miscellaneous Manufactures	7.0	7.1	7.3	8.4	9.1	9.6	5.5
<b>TOTAL</b>	<b>39.2</b>	<b>41.0</b>	<b>44.9</b>	<b>58.7</b>	<b>64.2</b>	<b>67.1</b>	<b>4.5</b>

p - Preliminary

r - Revised

SOURCE: Compiled from data supplied by STATIN

### Investment in Manufacturing

There was a 22.2 percent decline in the value of new JAMPRO-supported Projects (\$78.8 million to \$61.3 million). However, the number of implemented projects and average value of each project have increased. Within the category "**Other Manufacturing**" five data entry projects and two non-metallic mineral projects were implemented. The investment value was \$0.9 million and \$0.3 million respectively. A cosmetic goods project valued at \$0.1 million was also implemented.

### Manufacturing Exports

The value of total manufactured exports (including sugar and rum) declined by 3.5 percent or US\$10.9 million in 1990. Non-traditional exports, which accounted for 66.0 percent of total manufactured exports in 1990, decreased by 13.1 percent. Within this category, the sub-sectors of chemicals and chemical products, manufactured goods and miscellaneous manufactures declined by 1.7, 8.6 and 24.8 percent respectively. The downturn in miscellaneous manufactures is worrying as this sub-sector

**Non-Traditional Manufactured Exports to Third Countries 1985-1990**  
US\$ Million **Table 22**

SITC Sections	1985	1986	1987	1988	1989r	1990p	% Change 1990/89
Processed Foods	13.5	11.1	10.5	8.4	12.2	13.9	13.9
Beverages & Tobacco	15.0	14.4	17.7	17.1	15.1	16.7	10.6
Mineral Fuels	25.3	14.4	10.9	12.1	8.5	7.0	-17.6
Chemicals	5.0	4.1	8.0	5.6	6.7	4.0	-40.3
Manufactured Goods	1.7	1.9	3.0	3.4	4.0	4.8	20.0
Machinery & Trans. Equipment <sup>1</sup>	4	0.9	1.3	1.9	1.2	1.4	16.7
Miscellaneous Manufactures	39.2	57.2	110.4	117.5	117.2	85.4	-27.1
<b>TOTAL</b>	<b>101.1</b>	<b>104.0</b>	<b>161.8</b>	<b>166.0</b>	<b>164.9</b>	<b>137.6</b>	<b>-16.6</b>

p - Preliminary

r - Revised

SOURCE: Compiled from data supplied by STATIN



## New JAMPRO-Supported Projects Implemented in Manufacturing 1988-1990

Table 23

Sector	1988		1989		1990	
	No.	J\$M	No.	J\$M	No.	J\$M
Food Processing	4	0.9	2	2.2	3	5.8
Textile & Apparel Products	38	43.7	13	13.1	21	48.8
Chemicals & Chemical Products	1	0.5	0	-	-	-
Furniture & Wood Products	4	15.2	1	0.0	2	0.3
Electrical and Electronics	3	2.3	-	-	-	-
Paper and Paper Products	1	10.3	-	-	-	-
Footwear	1	3.3	1	0.1	-	-
Other Manufacturing	4	2.6	10	6.4	10	6.4
<b>TOTAL</b>	<b>56</b>	<b>78.8</b>	<b>27</b>	<b>21.8</b>	<b>36</b>	<b>61.3</b>

**SOURCE:** Compiled from JAMPRO reports

accounts for 47.7 percent of Jamaica's total non-traditional exports and consists of approximately 90 percent in apparel exports. The other non-traditional sub-sectors grew by an average rate of 7.0 percent, ranging from 14.0 percent for machinery and transport equipment to 0.6 percent for mineral fuels. Traditional exports (sugar and rum) grew by an average 25.1 percent in 1990.

### Non-Traditional Manufactured Exports to Third Countries and CARICOM

Jamaica's export of non-traditional commodities to extra-regional markets, which grew at an average annual rate of 21.5 percent between 1985-1989, declined by 16.6 percent in 1990. This represents the greatest decline in the sector since 1985. Exports of mineral fuels, chemicals and miscellaneous manufactures which fell by an average 28.3 percent largely accounted for the sharp downturn.

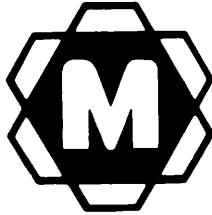
Slightly different trends were recorded for non-traditional manufactured exports to CARICOM. Total exports to CARICOM increased by 4.5 percent to US\$67.1 million in 1990, compared to 9.4 percent in 1989. It is interesting to note that between 1985-90, the value of Jamaica's exports to CARICOM was below the level attained in 1984 (US\$67.3 million). Clearly, this attests to the under-performance of the manufacturing sector.

### Prospects for the Manufacturing Sector

Developments in Europe and other major international developments (Uruguay Round, Lome IV and US/Canada Free Trade Agreement), as well as Caribbean integra-

tion will present Jamaica with challenges and opportunities.

Future growth in manufacturing will be dependent upon Jamaica's ability to diversify its economic base by developing alternative and high value-added export activities. Market-oriented policy reform, supply-side strategies, removal of manufacturing disincentives, technological innovations and a revitalization of entrepreneurial activity are the requisite factors.



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# MINING

Economic growth in the seven major OECD economies has been increasing at an average annual GNP/GDP rate of 3.4 percent since 1986. Real GDP/GNP growth for OECD countries was forecast to be 2.5 percent for 1990. The growth of these major industrial economies often translates into increased consumption of raw materials.

Relevant to the Jamaican economy is the projected 2 percent annual growth rate in world bauxite consumption up to the year 2000. If economic growth and consumption are sustained, this should have a favourable impact on the Jamaican economy. Western world consumption of primary aluminium grew by only 0.3 percent in 1990, compared to 1.4 percent in 1989. This downturn in demand was influenced by an average 1.6 percent decline in aluminium consumption in the United States and the United Kingdom.

In 1990, the average cash price of aluminium on the London Metals Exchange was below US\$0.60 per pound, compared to the US\$0.89 price of 1989.

## Production and Export

Despite the softening prices in the world aluminium industry, the Jamaican Bauxite/Alumina sector showed remarkable changes in 1990, both in output of bauxite and alumina and in foreign exchange earnings. Total bauxite production increased by 16.4 percent to 10,937.7 thousand tonnes over 1989's output, though crude bauxite exports declined by 7.3 percent. Alumina exports showed a substantial increase of 34.6 percent over 1989.

## Foreign Exchange Earning

The Jamaica Bauxite Institute's forecast for 1990 indicated that gross earnings from the sector should have exceeded US\$600 million. However, the country's net foreign exchange earnings were US\$270.9 million, a marginal 1.5 percent increase over 1989. Although earnings from the production levy declined 6.1 percent in 1990 over 1989, local cash inflows and royalty increased by a total of US\$11.6 million or an average increase of 13.4 percent over 1989.

## Government's Medium-Term Framework for Mining

Government has outlined that its policy in the mining sector is to ensure maximum production of bauxite and alumina and to develop other minerals such as limestone, marble and gypsum. Consistent with this policy, Government seeks to stimulate the supply-side of the industry by shifting the bauxite levy regime (which had been based on production) to a taxation regime based more on profitability. This revised tax regime should act as an incentive for increasing production, as the tax burden on mining companies would decrease during periods of unfavourable prices.

It should also provide more incentive for boosting domestic investment and production than any of the other previous amendments to the levy.

Another significant element of Government's mining policy is to ensure that the social costs (adverse environmental effects) are minimized. Government's pro-

**World Consumption Of Major Raw Materials**  
Average Annual Rates of Growth In Consumption (Percentage)

**Table 24**

	1969/71 1979/81	1979/81 1984/86	Projected 1984/86-2000
Metals and Minerals	2.75	0.61	1.32
Copper	2.49	0.86	1.44
Iron Ore	2.01	-0.43	0.68
Tin	0.22	-3.21	-1.05
Nickel	2.83	0.97	1.06
Bauxite	4.21	0.14	1.95
Lead	1.52	0.21	0.42
Zinc	1.31	1.84	1.27

**Western World Primary Aluminium Consumption 1986-1990**

('000 Tonnes)

**Table 25**

<b>COUNTRY</b>	<b>1986</b>	<b>1987</b>	<b>1988r</b>	<b>1989r</b>	<b>1990p</b>
United States	4,317	4,536	4,598	4,360	4,293
Japan	1,805	1,750	2,115	2,158	2,290
France	593	616	645	686	686
Germany	1,187	1,186	1,233	1,290	1,304
Italy	510	548	581	607	624
United Kingdom	389	384	427	455	447
Other <sup>1</sup>	4,182	4,331	4,781	5,023	4,986
<b>TOTAL</b>	<b>12,983</b>	<b>13,651</b>	<b>14,380</b>	<b>14,579</b>	<b>14,630</b>

r Revised

<sup>1</sup> Refers to non-Socialist world but including Yugoslavia**SOURCE:** *Jamaica Bauxite Institute*

posed intervention through the monitoring of underground and surface water and the atmosphere for particulates and corrosive gases will be instrumental in dealing with these externalized costs. There should however be policies that regulate residential and other interactive behaviour of citizens as well as tax policies which penalize the delinquent companies and reward the cooperative ones.

### Industrial Minerals

In 1990, all categories of industrial minerals except marble, which declined by 20 percent, showed an average annual rate of growth of 5.6 percent. Growth in production ranged from 3.6 percent for Marl and Fill to 9.3 percent for Silica Sand.

# TOURISM

Between 1985 and 1989, net services contributed an average annual of 63.2 percent to real GDP. Tourism and financial services are the two major sub-sectors of the service industry.

Broad indicators of the growth of international demand and expenditure and structural factors determining future growth prospects should greatly accelerate the growth trend of Jamaica's tourism.

## Visitor Arrivals

Total visitor arrivals to the island during 1990 were 1,236,069, a 6.3 percent increase over 1989. This rate of increase is, however, below the average annual growth rate of 8 percent between 1986 and 1989. Stop-over visitors accounted for 68.0 percent of the total, followed by cruise-ship passengers which accounted for 31.2 percent, armed forces on shore leave accounted for less than one percent. Stop-overs grew by 17.6 percent, while cruise-ship passengers declined by 13.3 percent.

In 1990, the overall percentage of stop-over visitors from North America fell by 1.4 percentage points to 80.8 percent. On average, stop-over visitors from the United Kingdom, other European countries, Japan and Latin America increased 0.5 percent. Stop-over arrivals from Japan are still very few in number (782), but this was more than double the number in 1989.

## Expenditure

The visitor expenditure survey conducted by the Ministry of Tourism reveals that in 1990 there was a slight increase of 2.6 percent in average expenditure per per-

son, per night by stop-over visitors over 1989. On the other hand, the average expenditure by cruise passengers increased substantially by 45.8 percent in 1990, moving from US\$48 to US\$70. It is felt that the relaxation by government in allowing tourists to shop freely with U.S. dollars has increased their propensity to spend.

Expenditure per person can still grow further based on the high per capita income levels that characterise the countries from which our stop-over visitors originate.

Gross visitor expenditure is estimated to have totalled US\$740 million, an increase of US\$147 million over 1989. This represents a record level of expenditure, and despite the impact of the Gulf War in the last quarter of 1990, the rate of growth of 24.8 percent in 1990 is almost three times the average annual increase of 8.6 percent since 1985.

Notwithstanding these improvements in average tourist expenditure, Jamaica's hoteliers and policy makers should continue their efforts to improve and diversify the entire tourism product so as to enhance Jamaica's product in an increasingly competitive world industry.

## Hotel Room Occupancy

Occupancy rose 5.0 points to an average 62.1 percent in 1990. This is the highest level attained in Jamaica in the past decade. However it is considerably lower than the 1989 average occupancy level for the Caribbean of 71.7 percent. Ocho Rios hotels realized a 70.2 percent occupancy rate, while Port Antonio was a mere 23.2 percent. Negril and Mandeville were the only two areas that experienced a reduction in their occupancy level which fell by an average 2.6 percent.

**Visitor Arrivals 1986-1990**

**Table 26**

Category of Visitors	1986	1987	1988	1989	1990	% of Total	% Change 1989/88
Stop-over Visitors	663,593	738,827	648,873	714,771	840,777	68.0	17.6
Cruise Ship Passengers	278,507	292,156	367,732	444,054	385,205	31.2	-13.3
Armed Forces	12,521	6,651	3,688	4,411	10,087	0.8	128.7
<b>TOTAL</b>	<b>954,621</b>	<b>1,037,634</b>	<b>1,020,293</b>	<b>1,163,236</b>	<b>1,236,069</b>	<b>100.0</b>	<b>6.3</b>

SOURCE: Jamaica Tourist Board

## **Demand for Jamaica - Caribbean Tourism**

Caribbean tourism is characterised by high income elasticity of demand. Bond and Cadman (1972) and French (1972) estimate income elasticities of 1.1 to 1.5. Clarke's (1986) study of demand for Barbados bed night in different classes of accommodation indicates per capita income elasticities between 2 and 6 for US and Canadian visitors, and between 1.5 and 2.7 for United Kingdom visitors<sup>1</sup>. Given these high income elasticities, one can infer that economic growth in the industrialised countries should result in continued bouyant demand in the tourism industry. In addition to the significance of these elasticities, price trends in CARICOM destinations and the cost of airfares are other important considerations. French (1972), in analysing Jamaica's tourism, reported relative price demand elasticities of -2.5 to -3.8. This demonstrates that Jamaica's tourism is extremely responsive to relative prices. We must therefore strive to maintain international price competitiveness.

Further, we must establish new tourism markets, sustain and even strengthen tourism marketing in North America and Europe because of changes in their income growth trends, ensure price competitiveness and develop transport and communication support systems.

<sup>1</sup> *Caribbean Development to the Year 2000 - Challenges, Prospects and Policies*, June 1988.