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Sector Study Series**

JAMAICA

**Productivity and Competitiveness
in the Jamaican Economy**

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Productivity and Competitiveness in the Jamaican Economy

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1. Productivity and Competitiveness in the Jamaican Economy

Over the decade of the 1990s the performance of the Jamaican economy was rather poor according to most macroeconomic indicators. The period was characterized by negative or very low rates of economic growth as well as high levels of unemployment. After achieving a growth rate of 5.5 percent in 1990, the highest growth rate Jamaica was able to achieve during the 1990s was 2.0 percent in 1993. Negative rates of growth in real gross domestic product (GDP) were recorded over the 1996 to 1999 period. The unemployment rate remained at over 15 percent of the labour force during the period. The inflation rate has only recently been brought under control after reaching a rate of 77 percent in 1992. The control of the inflation rate in a low-growth economy along with remittances from abroad enabled persons to go over the poverty line. The number of persons below the national poverty line declined from a peak of 44.6 percent in 1991 to 15.9 percent in 1998 but increased to 16.7 percent in 2001. Jamaica's external debt service ratio was over 15 percent for the decade, while the trade balance deficit grew over the period. The value of export goods fell between 1995 and 1999, while visitor expenditure grew at a slow rate. The government struggled to keep the fiscal deficit under 8 percent of GDP.

With rapid changes taking place in the international economic environment within which Jamaica has to operate, an integrated national economic plan is needed to rebuild the economy and to cushion it from the adverse effects of external changes. Since Jamaica has a small open and developing economy, an important element in any national economic plan is a focus on enhancing international trade competitiveness by improving overall productivity (that is, labour, capital, energy, raw materials). With Jamaica being a member of the World Trade Organization (WTO) and a party to the negotiations on a Free Trade Area of the Americas (FTAA) and a new European Union-African, Caribbean and Pacific Agreement (EU-ACP), trade liberalization will be a major economic concern over the next five years. In the context of trade liberalization in a dynamic economic environment, Jamaica will need to design measures to enhance its international trade competitiveness.

Measures of competitiveness tend to focus on either the real unit (labour) cost of production or the real effective exchange rate. Underlying these two measures is the productivity of the factors of production. Productivity in turn is influenced by several micro- and macro-economic and non-economic factors. As a recent IADB report indicates, an economy becomes "more competitive when the business environment is conducive to sustained growth of productivity and per capita income, in a context of integration into the world economy" [IADB, 2001, p. 7]. Recently, attempts have been made to develop indicators of international competitiveness of countries incorporating several economic and non-economic variables.

This study analyzes the factors affecting productivity and competitiveness in Jamaica over the past two decades. It relies on the use of past studies on the topics, field interviews with key informants, case studies of companies and a survey of enterprises. The study begins by

providing a brief overview of the Jamaican economic and business environment over the study period in order to provide the context within which an analysis of productivity and competitiveness can be undertaken. It then examines the factors affecting competitiveness in the export-oriented industries in Jamaica. These factors are based on the different analytical frameworks used to analyze competitiveness. The study then looks at the factors underlying productivity growth in Jamaica. The focus will therefore be on the productivity-competitiveness nexus in the Jamaican context. The study concludes with an identification of the programs and policies which can enhance productivity and competitiveness in Jamaican enterprises.

2. The Jamaican Economic and Business Environment: 1980-2001

Jamaica enjoyed relatively high rates of economic growth during the 1960s and early 1970s. The real GDP grew between 2.0 and 8.6 percent during the period 1960 to 1973. The inflation rate was also relatively low during the 1960 to 1972 period. The balance of payments current account balance however recorded an increasing deficit over the 1964 to 1973 period.

The oil price increases in 1973/74 adversely affected the Jamaican economy. Between 1974 and 1980, the economy recorded negative rates of economic growth. The inflation rate increased significantly to reach a peak of 35 percent in 1980. The balance of payments (BOP) position deteriorated thus creating a shortage of foreign exchange which exacerbated the decline in real sector activity. In 1977, the government sought assistance from the IMF to help stabilize the economy.

Since 1980 the government has been engaged in a program of macroeconomic and structural reform with the assistance of international financial institutions (International Monetary Fund, World Bank and Inter-American Development Bank). The primary objectives of the reform program have been to:

- a. reduce the role of the state in the economy;
- b. promote export-oriented production;
- c. reduce the deficits in the BOP and fiscal accounts;
- d. enhance economic growth and;
- e. eradicate poverty and reduce inequality.

[PIOJ, 2000].

As indicated earlier, the economic growth performance in Jamaica since 1980 has not been good. With the exception of 1987, 1989 and 1990, when the bauxite/alumina and financial sectors grew significantly, the growth rates have been negative or under 2.5 percent [see Table 1, Annex III].

Real GDP per capita fell from J\$6351.60 in 1980 to J\$5876.30 in 1985 and rose gradually to J\$7934.50 in 1993. With the negative growth rates experienced during the 1995-99 period, real GDP per capita fell to J\$7336.20 in 1999. There was a slight improvement during the 2000-1 period as the economy grew by an average of 1.2 percent per annum.

During the 1980s, the services sector performed much better than the goods sector (agriculture, forestry and fishing, mining and quarrying, manufacturing and construction

and installation). The main growth areas were financial institutions, real estate services and construction and installation. There was modest growth in the manufacturing sector while the growth performance in the bauxite and alumina industry was erratic. Export agriculture, performed rather poorly during the 1980s. Production in the livestock sub-sector however performed creditably.

The services sector continued to perform better than the goods sector during the 1990s. The financial services sector continued to perform well until the financial sector crisis in the mid 1990s. The agriculture sector performed creditably during the early 1990s but declined during the late 1990s. Domestic agriculture was the main source of creditable performance of the agricultural sector as the export agricultural sector continued its erratic growth performance during the 1990s. The manufacturing sector performed rather poorly during the 1990s with negative growth rates being recorded for most of the period. There was modest economic activity in the tourism sector (defined as hotels, restaurants and clubs) during the 1990s.

Although the growth performance was not good during the 1990s, the economy was able to record a reduction in the level of poverty over the 1989 to 2001 period. The percentage of the population below the poverty line declined from a peak of 44.6 percent in 1991 to 16.8 percent in 2001. LeFranc and Downes (2001) have suggested that the two main factors accounting for the reduction in poverty in a low-growth or declining economy were the inflow of remittances and the reduction in the inflation rate. Rural poverty has been much higher than urban poverty. For example, in 1989, the percentage of the population living below the poverty line in rural area was 40.7 percent while the figure for the Kingston Metropolitan Area (KMA) was 15.5 percent. In 2001, the corresponding figures were 24.1 percent in the rural area and 7.6 percent in the KMA.

The inflation rate in Jamaica was generally high over the 1980-2001 period. With the exception of the 1981/82, 1986/87 and 1997/2000 periods, the inflation rate was in double digits [see Table 1, Annex III]. Following a decline in the inflation rate between 1978 and 1982, the rate peaked in 1984 before declining again to a low level in 1988. The rate rose sharply between 1989 and 1991 before falling gradually since 1992. The main reasons behind the movement in the inflation rate were the changes in the exchange rate (i.e., devaluation or depreciation), increases in foreign prices (e.g., inflation rate in the USA) and, to a lesser extent, increases in the money supply [Barnes, 2000]. As part of its structural adjustment programs during the study period, Jamaica was forced to adjust its exchange rate policy on several occasions [see Thomas 1999, Atkins 2000]. Exchange rate policy has included a dual system (1983), a foreign exchange auction (1984), fixed exchange rate (1989), devaluation (1984, 1990), flexible exchange rate (1990) and the removal of exchange controls (1991). The nominal exchange rate moved from J\$1.78 for US\$1 in 1980 to J\$46.09 in 2001 as a result of regular devaluations and depreciations of the exchange rate. Atkins (2000) found that devaluation in the real exchange rate had a negative impact on output as frequent changes in the nominal rate created an environment of uncertainty.

McFarlane (2002) has presented econometric results to indicate that the inflationary impact of exchange rate depreciation in Jamaica declined during the 1990s. While the 80 percent

pass-through to the consumer price index (CPI) was completed within six months of an initial shock to the nominal exchange rate during the period 1990-95, only 45 percent of the pass-through was completed six months after an initial shock during the 1996-2001 period. Despite “the moderation in the pass-through, the results suggest that the influence of the exchange rate movements is still significant for inflation” (p. 22). Furthermore, frequent changes in the exchange rate can create expectations which can adversely affect the economy (e.g., capital flight, hedging).

Exchange rate changes have been part of the policy package aimed at stabilizing the economy. Like other countries with a small, open and developing economy, Jamaica has experienced a ‘structural deficit’ on the current account of the BOP. With the exception of 1988, 1992 and 1994 when the current account recorded a small surplus, the BOP of Jamaica realized a deficit during the 1980-2000 period [see Table 2, Annex III]. The capital account was in deficit during the period 1980 to 1993, while a surplus was recorded over the 1994 to 1999 period. The net inflow of capital was critical to the overall BOP position during the study period. With the exception of 1983 and 1986, there was a surplus in the combined capital and financial account of the BOP. The net inflow of capital was however insufficient to prevent an overall BOP deficit during the period 1980-1983 and also in 1985 to 1987. Significant deficits were also recorded in 1997 (US\$170.4m) and 1999 (US\$136.4m).

The BOP problems were partly affected by the fiscal position of the government. The fiscal balance (excluding amortisation) was in deficit over the 1983/4 to 1986/7 period and also during the 1996/7 to 2000/1 period. These periods were associated with negative or low rates of economic growth and deficits on the BOP. During the 1983/4 to 1986/7 period the fiscal deficit as a percentage of GDP varied between 1.9 and 13.6 percent and during the 1996/7 to 2000/1 period the range was 1.1 to 8.4 percent.

The poor BOP position during the late 1970s and the 1980s resulted in a significant decline in the net foreign asset position of the country. Net foreign assets were negative between 1975 and 1992. There was however a significant rise in net foreign assets between 1993 and 2000, that is, from J\$1.4 billion in 1993 to J\$64 billion in 2000. The country engaged in a high degree of foreign borrowing in order to meet its external financial obligations. The actual external debt service ratio was high but declined during the 1980s. In 1990, the ratio was 28.5 while in 2000 it had declined to 13.4. The high level of domestic and foreign debt meant that valuable resources which could have been devoted to productive activity were diverted to servicing both internal and external debts. The ratio of external debt outstanding to the export of goods and services was 178.35 in 1990 but declined to 94.7 in 2000. The external debt to GDP ratio declined from 97.8 in 1990 to 50.3 in 2000. The internal debt to GDP ratio declined from 32.7 in 1990 to 25.0 in 1993 but climbed to 68.8 as the government responded to the collapse of the financial sector in the mid-1990s.

The economic difficulties faced by Jamaica during the 1980s and 1990s meant that it had to reposition itself in the external market. The macroeconomic indicators indicated that Jamaica had lost its competitive advantage. As a small open developing country, Jamaica relies on exports of goods and services for its economic survival. Jamaica accounts for approximately 0.04 percent of the world’s export of goods. The data indicate that industrial

countries (USA, Canada and UK) were the main markets for the country's primary exports (bauxite, sugar, bananas, citrus, manufactured goods and tourism) [see Table 3, Annex III]. The growth performance of exports has however not been satisfactory in recent years. Negative growth rates in the value of exports of goods were recorded for the 1997-2000 period [see Table 3, Annex III]. Furthermore, there has been a decline in the ratio of exports to GDP since 1994 [see Table 4, Annex III].

The export sector can be divided into traditional (bauxite, alumina, sugar, bananas, coffee, etc) and non-traditional (root crops, beverages and tobacco, wearing apparel, chemicals, etc) components. Over the period 1980 to 2001, the value of traditional exports fluctuated between US \$381m in 1985 and US \$945.4m in 1997. There was a weak upward trend in the value of these traditional exports which accounted for an average of 74 percent of the total value of exported goods. Bauxite and banana exports exhibited a downward trend during the 1990s, while alumina and sugar exports showed a modest upward trend during the period. The value of export earnings is affected by either changes in the price or the volume of the exports or both. Available data on alumina prices show a high degree of volatility over the 1980-2000 period. Alumina prices on the London market varied from US\$0.45 per pound in 1982 to US\$1.16 per pound in 1988. There was however a general decline in alumina prices during the 1990s. Banana prices were relatively constant during most of the 1980s, but increased during the late 1980s. They remained relatively constant during the 1990s. After a general decline in sugar prices in the early 1980s, there was a general rise in sugar prices between 1986 and 1995 in the European Union. From the mid-1990s there has been a fall in the European Union's import price of sugar. Whilst the volatility of export prices may have affected the value of exports of traditional exports, it also seems that these sectors faced production problems as there were periods when the value of exports fell while export prices were increasing.

As a part of its export diversification program, Jamaica has been seeking markets for several 'new' products. In the agricultural sector, several vegetables and root crops have been targeted for export. In 1990, Jamaica received an agricultural sector structural adjustment loan to help boost productivity and competitiveness. Research shows that Jamaica is strongly competitive in the area of citrus rather than various vegetable and root crops [Singh, 2002]. In addition, the sector has been adversely affected by the government macroeconomic policies (high taxation and interest rates and over-valued exchange rate). Although there has been some success in penetrating the US market in the area of non-traditional agricultural products (e.g., Jamaican papaya), there have also been problems affecting the export of vegetables and root crops, especially to the USA [Singh, 2002, pp 413-4].

Jamaica was able to reap some success with the export of wearing apparel to the USA under special agreements between 1984 and 1995. Much of the production took place in export processing zones. With the formation of the North American Free Trade Area (involving USA, Canada and Mexico), there was a significant decline in exports as Jamaican products proved to be uncompetitive compared with Mexican products. Available data for the apparel industry in a set of Latin American and Caribbean countries indicate that the cost of labour in Jamaica was US \$1.80 per hour in the late 1990s compared with Mexico's US \$1.08 per hour. Indeed, out of ten countries (including Haiti, Nicaragua, Columbia,

Mexico, Guatemala, Honduras, El Salvador, Dominican Republic, Jamaica and Costa Rica, Jamaica was ranked ninth and Haiti first in terms of level of labour costs in the apparel industry [Schrank, 2003].

The services sector, especially tourism, has been a significant contributor to Jamaica's output, foreign exchange generation and employment. In the tourism sector, both stop-over and cruise ship visitors have increased significantly since 1981. In 1981, stop-over visitors were 406,355, while in 2001, there were 1.3m such visitors. On the other hand, cruise ship passenger arrivals grew from 139,672 in 1981 to 840,337 in 2002. With an average length of stay varying between 9 and 11 nights (for long-stay visitors) and an 'average' occupancy rate varying between 41.5 and 62 percent, Jamaica has been able to increase its foreign exchange earnings from US \$142.8m in 1981 to US \$1332.6m in 2000. The hotel sector directly employs over 30,000 persons (about 4 percent of the employed labour force), while the wider tourism sector (directly and indirectly) accounts for an estimated 200,000 persons (that is, 20 percent of the employed labour force). The hotels, restaurant and clubs sector contributed an average of 9 percent of constant price GDP during the 1990s.

Despite the significance of the tourism industry to the economy of Jamaica, there are still problems which affect productivity and competitiveness in the sector. Jayawardena and Crick (1999) have identified the weak educational background of certain categories of workers (mathematics, English and foreign language competency) as a factor which affects the quality of service and the ability of the country to diversify into non-English-speaking markets. Labour laws which increase the cost of labour and the shortage of certain key skills (e.g., chefs) have had an adverse impact on the tourism sector. In general, they argue that there is a need to engage in substantial human resource development in the tourism sector in order to enhance productivity. Jayawardena and Crick (1999) however note that in the case of certain all-inclusive hotels – Sandals and SuperClubs – intensive and ongoing training programs are in place because of the close and regular contact between employees and guests.

In order to enhance the competitiveness of the tourism sector, there is a need to upgrade the products offered to tourists, to stop tourist harassment and engage in an intensive marketing program. The tourism sector has been beset by a number of setbacks in recent years – riots in Kingston, hurricanes and the September 11, 2001 event in the USA. The depreciation of the Jamaican dollar would have helped to increase tourist arrivals from the USA which is its main market.

A great deal of concern has been expressed over the poor export performance of the Jamaican economy especially during the 1990s. With the international market becoming increasingly liberalized, the competitiveness and profitability of the export sector (goods and services) are exceedingly critical to the country's sustainable economic development. In 1996, the Government launched its *National Industrial Policy* with a central role being given to the export thrust as a means of enhancing growth and development.

The 'export push' defined in terms of the growth and diversification of tradeable goods and services would be supported by a range of policy measures aimed at boosting local and foreign investment in the key sectors. The policy package has been designed to include

science and technology, human resource development, fiscal and monetary policies, transportation and energy policies and industrial policy measures. Three phases of the policy were envisaged: short-term (one year), whereby a social partnership with key stake holders would be established; medium term (3 years), whereby the focus would be on macroeconomic stability; and long-term (15 years), whereby the export push would come into full effect. Industrial policy instruments and targets have been built around five industry clusters involving services, services and technology, agriculture and manufacturing and two areas of manufacturing. Progress with the national industrial policy has been slow. The Government has been struggling to stabilize the economy within the stipulated three year period while the social partnership has not developed to the level required for such a national effort. The Government has been slowly implementing the range of policy measures needed to support the 'export push'. There are however concerns regarding the social climate created by criminal activity and the emigration of skill labour to more developed countries. The Government has achieved some measure of success in easing the difficult business environment by reducing both the inflation rate and lending rates. These have been the major sources of concern for businesses in Jamaica. The Government has also established export-processing zones as a first step in its export drive. The incentives offered are however quite similar to the country's competitors: Panama, the Dominican Republic, Costa Rica, Honduras [see Harris, 1997].

Jamaica offers a range of financial and fiscal incentives to enhance the export thrust of firms. These include income tax concessions, exemption from import duties on raw materials and machinery, no restrictions on the movement of foreign currencies either in or out of the country and accelerated depreciation/special capital allowances.

Over the past decade, the Government has been implementing a number of economic reforms in order to make the business environment more conducive to private sector investment. In addition to the privatization of a number of state-owned enterprises since 1981 (Bernal and Leslie, 1999), the government has liberalized the international trade regime and the foreign exchange market and has actively promoted foreign direct investment and export processing zones. The government has also engaged in public sector reform by introducing the principles of new public management into its operations. These principles relate to an emphasis on output, the introduction of managers who are given the freedom to manage, the introduction of performance standards and the use of contracting out. Bissessar (2002) however notes that like Trinidad and Tobago, Jamaica has only had partial success with the introduction of the new management system.

The Government has also introduced a Fair Competition Act (1993) which has been designed to "provide for the maintenance and encouragement of competition in the conduct of trade, business and in the supply of services in Jamaica with a view to providing consumers with competitive prices and product choice" (Preamble to the Fair Competition Act). The Act prohibits exclusive dealing, tied selling, market restriction and abuse of dominant position (i.e., restrictive business practices) within the Jamaican market.

Assessments of the economic and business environment in Jamaica have been undertaken in light of these reforms over the years. The Heritage Foundation calculates an Index of Economic Freedom which includes trade, fiscal burden, government intervention, monetary

policy, foreign investment, banking/finance, wages/prices, property rights, etc indicators. The results indicate that while some progress towards 'economic freedom' was made between 1995 and 2000, Jamaica still has a relatively high index value (i.e., lower degree of freedom) compared with other Caribbean countries, namely, Trinidad and Tobago and Barbados [see Table 5, Annex III]. The data suggest that Jamaica has lost ground over the years as signaled by its drop in the ranking of countries.

The long-term foreign currency sovereign credit rating by Standard and Poor's suggests some slight improvement in the Jamaican economic performance between December 2000 and 2001 following the measures adopted to resolve the financial sector crisis. While Jamaica has a lower credit rating than its competitors, there has been some improvement [see Table 6, Annex III].

A recent survey of US companies which have invested or are planning to invest in Jamaica points to a number of factors which affect productivity and competitiveness in Jamaica. The primary attractions for US investors were relative political stability and democratic traditions, the physical beauty of the country, the culture of the country, its strategic geographical location and the existence of preferential trading arrangements with the USA. The survey which was conducted in 1998 identified the main challenges for business investors as: infrastructural (poor roads, inadequate mass transport for workers, traffic congestion, the high cost of telecommunications and electricity), crime and security and labour relations. These conclusions contrast with a 1995 survey which identified bureaucratic red tape as the major hurdle to investment in Jamaica [US Department of Commerce, n.d.]. Although there were still bureaucratic/red tape problems (e.g., getting approvals and permits, custom clearance), the high cost of labour relative to labour productivity, the complexity of the land title process and the high costs of shipping from some ports were regarded as problem areas.

The 'export push' requires an economic and business environment which supports investment (physical and human), macroeconomic stability, productivity and competitiveness. It is therefore important to understand the factors affecting competitiveness and productivity in the Jamaican economy.

3. The Competitiveness of Jamaican Enterprises

Competitiveness can be examined at three levels. At the *enterprise* level, it reflects the “ability to design, produce and/or market products superior to those offered by competitors, considering the price and non-price tangibles” and hence to secure profitability [Momaya and Ajitabh, 1999, p. 257]. At the *sectoral/industry* level, competitiveness relates to the “extent to which a business sector [or industry] offers potential for growth and attractive return on investment” (op. cit., p. 257). Finally, at the *country* or *national* level, it refers to the “extent to which a national environment is conducive or detrimental to business” thereby enhancing the capacity of the economy to improve the standard of living. In effect, competitiveness refers to the ability of the enterprise/sector/country to produce and sell goods and services in domestic and foreign markets at prices and quality that ensure long-run viability and sustainability. External competitiveness can be examined *ex post*, that is, through revealed or actual export performance or *ex ante*, through factors which are expected to encourage good export performance (wages, exchange rate, incentives, etc).

There are several ways of measuring the degree of external competitiveness at the levels specified above. The real effective exchange rate of a country is a commonly used measure. The effective exchange rate (EER) is a country’s nominal exchange rate *relative* to that of a number of other countries which are considered competitors. A trade-weighted average exchange rate for the country relative to other countries is used. The real effective exchange rate (REER) is obtained by deflating the EER by appropriate price (consumer or wholesale) or cost (labour) deflators. The degree of competitiveness can also be assessed by the relative real unit labour costs of production (RULC). The RULC is the ratio of the real wage rate to labour productivity. The concept can be extended to consider other elements of costs and factors of production to yield the real unit costs of production (RUCP).

The ratio of the prices of tradeable goods to those of non-tradeable goods can also be used as a measure of competitiveness. As the prices of tradeable goods increase relative to those of non-tradeable goods, producers will have an incentive to increase the production of tradable goods and reduce the production of non-tradeable goods. The ratio of the trade balance to total trade can provide an indication of the degree of competitiveness of a country. This ratio varies between ‘plus one’ which signifies that the country only exports goods and hence is strongly competitive and ‘minus one’ which indicates that the country only imports goods and is therefore weakly competitive. The use of the above single index measures of competitiveness tend to miss a number of factors underlying the concept. Enterprise level competitiveness is dependent upon a number of industry and macro-economic and political/social variables. The REER also reflects the effects of macro-economic policies (fiscal, monetary, credit, etc). In recent times, various institutions have developed broader indicators of competitiveness since an economy or country is more competitive “when companies operate in an environment that is conducive to the sustained growth of productivity and per capita income” (IDB, 2001, p. 9).

Since it has been argued that it is firms rather than countries that compete with each other (Krugman, 1994), the concept of competitiveness at the country/national level has been defined to reflect the “quality of the environment for investment and for increasing productivity in a climate of macroeconomic stability and integration into the international economy” (IDB, 2001, p.1). The broader approach to measuring the degree of competitiveness is therefore multi-factoral. In its Global Competitiveness Report 2001, the World Economic Forum identified the main factors affecting competitiveness as the quality of macroeconomic environment, the quality of public institutions and technology. Using 286 variables, the Forum analyzes and ranks the ability of countries to provide an environment in which enterprises can compete. These input variables are grouped in economic performance, government efficiency, business efficiency and infrastructure. A national competitiveness balance sheet can be constructed to show the strengths and weaknesses of the four factors in relation to a country’s competitors.

The IDB has expanded on the work of the Forum by focusing on the “deficiencies in the market of the principal productive factors that limit the functioning and productivity ... of [the] private sector, and that can be corrected through public policies” (IDB, 2001, p.2). These factors relate to credit, human resources, infrastructure for ports, electricity and telecommunications and new information technologies. The IDB focuses on the institutional changes needed to ease the adverse effects of these factors, especially credit and human resources. Institutional change is defined as the change in “the formal and informal rules and enforcement mechanisms that shape the behaviour of organizations and individuals in a society” [IDB, 2001, p.3]. These institutions relate to the rule of law, the effectiveness of the public administration system and the quality of the regulatory framework.

There have been a few studies on the competitive issue in Jamaica using the above measures and frameworks. Henry (2001) uses four single factor measures of competitiveness to assess the Jamaican situation over the period 1986 to 2000: real effective exchange rate, the profitability of producing tradable goods, the ratio of the price of tradable goods to non-tradable goods and the ratio of the trade balance to total trade. The results show a general decline in Jamaica’s external competitiveness between 1986 and 2000 with a continuous loss between 1992 and 1998. There has been some improvement since 1998. The general decline in external competitiveness between 1986 and 2000 occurred despite depreciation in the exchange rate. Henry (2001) notes that the decline was due to increases in the costs of production which rose faster than the depreciation of the exchange rate. Given the high import-dependence of the Jamaican economy, it is expected that change in the nominal exchange rate would result in domestic price increases and also wage costs via the ‘pass-through-effect’. As indicated earlier, this effect has moderated over the past decade. Since 1992, the Government has instituted a number of changes which could have affected the degree of external competitiveness: liberalization of the foreign exchange market which has resulted in a depreciation of the exchange rate, the removal of subsidies, price controls and wage guidelines and the introduction of a general consumption tax (GCT). Some of these policy measures would have resulted in an increase in internal costs relative to the depreciation of the exchange rate.

An examination of the real effective exchange rate over the period 1980 to 2000 indicates varying periods of appreciation (loss in competitiveness) and depreciation (gain in competitiveness). Jamaica lost competitiveness in external markets during the periods 1980-82, 1986-89, 1993-1998 while it gained in external competitiveness during the periods 1983-85, 1990-92 and 1999-2000 [see Figure 1, Annex IV].

The use of the real unit labour cost (RULC) index also gives the same general picture of competitiveness over the 1980 to 2000 period [see Figure 1, Annex IV]. In general, there was an increase in real average compensation over the 1980-2000 period which was greater than the increase in overall productivity. Data for average real weekly wages in large establishments indicate a general upward trend over the 1986-1999 period with a pronounced change in 1993 after the wage guidelines were lifted. A partial explanation for the loss in external competitiveness is the increase in labour costs relative to the depreciation in the exchange rate. Increases in the commercial banks' lending rates from an average of 16.1 percent in 1980 to almost 50 percent in 1994 would have also resulted in a rise in the 'cost of doing business' in Jamaica and hence a decline in external competitiveness. Key informants also indicate that the rise in criminal activity has also added to the operating costs of enterprises in Jamaica (i.e., security costs). A survey of establishments indicated that there was a general increase in all categories of costs (wages/salaries, fuel energy) between 1998 and 2002.

In a comparative analysis of competitiveness between Jamaica and Malaysia using a broad set of macro-economic and social indicators, Ross-Brewster (1995) reached the following conclusions:

- a. the REER was about the same for both countries in 1987 and 1994;
- b. price and nominal exchange rate instability and uncertainty were greater in Jamaica;
- c. there was a general decline in labour productivity in both countries, hence competitiveness was not productivity-driven;
- d. Jamaica was ahead of Malaysia in terms of social and human development indicators;
- e. the main difference between the countries was the rates of gross domestic savings and investment. These were much higher in Malaysia than in Jamaica. Furthermore, Malaysia encourages an inflow of foreign investment through supportive policies and programs.

Using the standard deviation of gross private capital flows as a proportion of GNP, Jamaica exhibited a relatively high degree of volatility compared with other Latin American and Caribbean countries during the 1980s (0.039) and the 1990s (0.024). The arithmetic means for the region were 0.037 (1980s) and 0.028 (1990s) [see Rodrik, 2001].

The World Competitiveness Index (2001) ranks Jamaica 52nd out of 75 countries using indices of the macroeconomic environment, quality of public institutions (property rights, rule of law, corruption) and technological innovation. In the context of the Latin American and Caribbean countries included in the WCI, Jamaica was ranked 9th out of 20 countries –

behind such countries as Costa Rica, Trinidad and Tobago, Mexico and the Dominican Republic. The World Competitive Index (2002) ranks Jamaica 60th out of 80 countries, thus representing a decline in the country's overall competitiveness. This statistical result is supported by the perceptions of respondents to the survey undertaken for this study. While 66 percent of the respondents indicated that their enterprise competitiveness improved over the 1998-2002 period, about 50 percent saw the country's competitiveness falling. These rankings suggest that the country needs to do a lot more to cultivate a business environment for enterprises to operate and to be more competitive. The main area of concern is the nature of the macroeconomic environment. Rodrik (2001) estimates a high level of volatility of GNP in the 1980s (0.042) and 1990s (0.038) as measured by the standard deviation of annual GNP growth rates. As indicated in the previous section, while the inflation rate has fallen significantly since the mid-1990s, economic growth has been largely non-existent and the country has been grappling with a major debt problem.

A number of sectoral and enterprise studies have been undertaken in Jamaica to determine the underlying factors affecting external competitiveness. Kurk Salmon Associates (KSA) (1997) undertook a comparative analysis of the competitive position of Jamaica as an exporter of apparel products to the US market. Using nine Latin American and Caribbean countries as comparators, they found that Jamaica was losing its comparative position vis-à-vis these countries (Mexico, Honduras, El Salvador, Costa Rica, Haiti, Nicaragua, Columbia, Guatemala and the Dominican Republic). Jamaica was regarded as a high cost option for apparel sourcing in the Latin American region. Of the 10 countries used in the study, Jamaica was regarded as the third most expensive in terms of total assembly costs and package services. Several reasons were identified for this loss in competitiveness:

- a. high operating costs – rental rates, labour costs, high interest rates, utility costs;
- b. additional costs associated with security arrangements for workers, premises and shipments;
- c. limited access and hence use of new technology and new manufacturing systems;
- d. limited incentives from the government.

It was recognized that the industry's competitiveness can be regained through greater governmental technical and marketing assistance, incentives to attract new investment and installed capacity and training of the workforce. Maintaining a stable exchange regime was also considered to be important since revaluations of the Jamaican dollar have adversely affected the industry.

Trevor Hamilton and Associates (THA) (2000) also undertook a study of competitiveness of the Jamaican manufacturing sector using Costa Rica and Trinidad and Tobago as comparators. The analysis of competitiveness was undertaken under three heads: economic dynamics, the business environment and operational dynamics.

In the area of economic dynamics, it was noted that the manufacturing sector was more important to Jamaica than to Trinidad and Tobago which has a large oil and petrochemical industry. The relative large informal sector in Jamaica is perceived as a major source of

unfair competition while the government's claim on credit resources crowds out the private sector's access to credit. In addition, there is a relatively smaller allocation of resources by the Government of Jamaica to support the manufacturing sector. Productivity and hence competitiveness in the Jamaican manufacturing sector is hampered by the relatively poor level of human capital (that is, lack of basic education). Given its relative size in the CARICOM region, Jamaican manufacturers have not sought to exploit the CARICOM market enough, but have concentrated on "markets where it is most difficult to secure technical, qualitative and price competitiveness" (p. 12).

In terms of the Jamaican business environment compared with Costa Rica and Trinidad and Tobago, it was noted by THA that inflation rates were much higher, labour productivity lower, crime rates higher, economic growth lower and interest rates higher. The government has been advocating the need for a national social partnership and dialogue with the private sector and labour unions in order to address these problems. Several attempts have been made to establish a national social partnership or contract, but these have not been sustained. Sectoral social partnerships in the form of a memorandum of understanding have been reached between the private sector and the labour unions (e.g., in the bauxite/alumina sector).

In the area of operational dynamics, the Jamaican manufacturers have recognized that they have to focus on training and development, new technology, customer service and benchmarking in order to enhance competitiveness. There is less reliance on traditional mechanisms for enhancing competitiveness and sustaining viability (that is, cheap labour, high tariffs, tax concession and devaluation).

THA (2000) observe that a "high percentage of Jamaican manufacturing enterprises spread their limited resources to internally provide [activities] which become fixed when they should be variable costs" (p. 15). These activities include storage, packaging, marketing and promotion. Fixed costs as a percentage of total manufacturing costs are much higher in Jamaica than in the other countries thereby giving Jamaican manufacturers a low propensity to compete on costs and/or price. As indicated in previous studies and confirmed by key informants contacted for this report, the driving forces for these high costs are: high interest rates, utility rates, fringe benefits/social costs and security costs.

Jamaica has experienced lower rates of productivity growth in sectors supporting the manufacturing sector (i.e., transport, construction and finance) so that there are spillover effects. Given the adversarial nature of industrial relations in Jamaica, a greater use of resources has been made in industrial relations matters than other labour productivity enhancing measures (such as productivity gainsharing, employee development as in Trinidad and Tobago and Costa Rica). Employee incentive schemes in the comparator countries, as in Barbados, are designed to enhance productivity and sustain competitiveness. In effect, a major challenge for Jamaican manufacturers vis-à-vis their competitors is enhancing labour and total productivity by greater investment in human capital, using new vintages of technology and seeking to reduce the average costs of production.

Wint (1997, 2001) undertook an analysis of the factors determining the competitiveness of enterprises in Jamaica. Using a small set of enterprises in the banking/insurance, tourism/entertainment, rental/distribution/communication, manufacturing and agro-processing/food/beverage sectors, Wint (2001) identified the following ‘competitiveness drivers’: international benchmarking, a focus on innovation, marketing, quality and technology, workplace transformation and human resource development, effective risk management and adroit corporate leadership [see Table 7, Annex III]. He argues that the development of internationally competitive enterprises depends on the ability to encourage entrepreneurs who can mobilize resources, manage risk and create a passion for the business [Wint, 1997, p. 312].

Harris (1995, 1997) undertook a detailed analysis of the Jamaican export performance using econometric and survey methods. In his econometric study of aggregate exports of goods and non-factor services over the period 1965-1990 for five Caribbean-Basin countries – Barbados, Costa Rica, Dominican Republic, Jamaica and Trinidad and Tobago, Harris (1997) found a significant positive role for the real exchange rate (that is, “six percent real depreciation adds one percent to the growth rate of exports” (p. i). Harris (1997) documents the enterprise or microeconomic issues facing exporters in Jamaica. In order to boost their competitive advantage, several enterprises indicated that they invested in new plant and equipment, upgraded the skill of employers, improved product quality, forged strategic alliances with foreign companies and enhanced the efficiency of existing machinery and equipment. In the mid-1990s when the Harris survey was undertaken, the main factors which provided exporters with a competitive advantage were: energy costs, access to government assistance and a large scale of production.

A National Survey of Workplace Practices in Jamaica undertaken in the late 1990s identified cost elements as the main factors affecting the competitive advantage of enterprises. With the high rates of inflation and tight monetary policy measures, high interest rates were identified as the main factor affecting enterprise competitiveness [see Table 8, Annex III]. The nature of the social infrastructure, accessibility to capital, import duties and skill availability were also identified as important factors. While human resource factors were not identified as key factors in the determination of enterprise competitiveness, they did have a positive impact on enterprise performance. Aptitude and worker skill levels were considered to have a significant positive impact on enterprise competitiveness [see Table 9, Annex III]. The Survey indicated that 77 percent of the 200 respondents thought that the economic environment was fairly or very competitive due to the implementation of government’s trade liberalization policies. In effect, the responses from the sample of enterprises suggest that price (affected by cost elements) and quality (determined by product, workforce and customer service) were the most critical factors for enhancing enterprise competitiveness.

Data from a survey of 46 enterprises conducted for this report indicate the main factors that affect competitiveness at three levels in Jamaica over the past five years. At the **enterprise level**, the respondents identified: increased costs of production, the degree of capital investment, staff training, customer service/on-time delivery and reducing internal inefficiencies. At the **sectoral level**, the main factors were: product differentiation, greater entry to the market and underutilization of machinery/equipment. The **country’s**

competitiveness was affected by high unit costs of production, low levels of productivity, inadequate government support, bureaucratic red tape, crime/violence and social instability. These factors increase transactions costs and create uncertainty in the macro-environment.

Over 80 percent of the respondents to the survey focus their operations on the domestic market where they compete with other producers and importers. These enterprises adopted different measures to enhance their competitiveness in respective markets over the past five years (1997-2002). *Domestic* market initiatives included investment in new technology, cost control and management, improved product/service provision and enhanced marketing. The same measures were adopted for enhancing competitiveness in the *regional* market. Joint ventures, however, were the main initiative adopted by Jamaican enterprises to promote regional competitiveness. Cost control and aggressive marketing were used to boost competitiveness in the *extra-regional* markets. Several export companies have been certified under the ISO 9000 system. In effect, cost control and marketing were the main initiatives adopted by Jamaican enterprises over the past five years in order to enhance their competitiveness in the domestic and export markets. Data from the respondents indicate that labour costs and raw materials/fuel were the main components of production costs. Increasing the productivity of the associated factors of production therefore becomes an important element in the improvement of enterprise competitiveness in Jamaica.

In summary, the increasing costs of doing business in Jamaica occasioned by high interest rates, utility rates, criminal activity, depreciation in the exchange rates and labour costs have affected the external competitiveness of Jamaican exporters. One strategy for regaining this competitiveness is to increase the productivity of resources used by enterprises while creating an environment of macroeconomic stability and entrepreneurship.

4. Productivity Growth in Jamaica

Productivity is concerned with the use of resources (inputs or factors of production) in order to obtain the output of goods and services. Productivity is expressed as a ratio of the output of goods and services to inputs used in the production process. In practice, two concepts of productivity are used: *labour productivity* which relates the amount of output produced relative to the labour resources used (labour hours or number of workers employed) and *total productivity*, which refers to the output produced relative to *all* the inputs used (labour, machinery, equipment, raw materials, energy, etc). Productivity increases when fewer resources (inputs) are used to produce the same level of output or when the production of more and better quality output takes place with the same resources. Productivity analysis can take place at different levels: individual, departmental/unit, enterprise, sectoral/industry and national. The purpose of the analysis and the availability of data usually dictate the level of productivity analysis undertaken.

As indicated in the previous section, increases in productivity are critical to a country's competitiveness in the international market. Since the productivity level in one country relative to another is the essential element in the competitiveness equation, it is important to examine the factors which affect productivity growth in a country relative to another country. For example, if the real unit labour cost (RULC) is used as a measure of a country's competitiveness, then for a given exchange rate, the ability of a country to improve its competitiveness depends on the growth of labour productivity in the country relative to its competitor (assuming the real wage differential does not change over time). Increases in productivity also have a dampening effect on inflation, which can enhance competitiveness through the real effective exchange rate (REER) [see Annex I].

Productivity growth is affected by several factors at the macro-level: sectoral allocation of resources, economies of scale, trade orientation, human resource development policy, research and development policy, technological change, the development of social infrastructure, the regulatory environment and the international business and political environment. At the micro-level, some of the factors which affect productivity include the choice of incentives, supervisory practices, use of shift systems, training schemes, general working conditions and relationships, use of modern technology, management systems and the organization of plant. In a highly competitive environment, increasing productivity and quality are important to long term profitability since firms might not be able to increase prices.

Very little systematic research has been undertaken on the factors affecting productivity in Jamaica. Using the ratio of real GDP to the number of persons employed as a measure of aggregate productivity, the data indicate that labour productivity declined steadily between 1980 and 1986 (from J\$19,487.76 in 1980 to J\$17,187.73 in 1986), followed by a gradual increase from 1987 to 1993 and then a decline from 1994 to 1998 [see Figure 2, Annex IV]. With the upward trend in the number of persons employed, the changes in labour productivity reflected the changes in real GDP over the period. Over the period 1980 to 2000, the average annual growth rate in labour productivity was 2.2 percent, which is

relatively low given the high investment to GDP ratio. Over the 1980-2000 period, the ratio was over 25 suggesting that the labour productivity should have been much higher [see Table 10, Annex III].

Three possible reasons have been advanced for the coexistence of a relatively high investment to GDP ratio and the relatively low level of aggregate labour productivity [see World Bank, 2000]. First, measurement error in the real GDP estimates might have arisen because of the significance of the informal sector in the Jamaican society. While national accounts data are obtained from established or registered enterprises, employment data are obtained from a survey of households. In effect, there is likely to be a mis-match between output and employment data. Second, resources may have been invested in areas with the highest potential long-term returns, so that the puzzle may be due to allocation inefficiencies in the capital investment process. Finally, high interest rates may have crowded out sound projects with long-term net benefits.

Several initiatives have been undertaken over the years to boost productivity and enhance competitiveness in Jamaica. Starting in 1966 with the establishment of a Productivity Centre within the Jamaica Industrial Development Corporation (JIDC), the Government of Jamaica has sought to establish the institutional mechanism to promote productivity improvement in Jamaica [Hussey, 2002]. The approach has largely been piecemeal and unsustainable. Several speeches by Ministers of Government and policy documents exhort the need to increase labour productivity as a means of enhancing the export competitiveness of Jamaican goods and services. The most recent initiatives involve the preparation and partial implementation of a National Industrial Policy and the proposal to re-establish a National Productivity Centre.

The concern over the low level and rate of growth of productivity (labour and total) has resulted in the drive to examine the factors affecting productivity in the Jamaican economy. Kirton (1992) reports on a case study of labour productivity enhancement in Jamaica which indicated that the following factors were important: plant reorganization and lay-out, greater involvement of supervisors in producing ideas for improvement, proper production scheduling (planned down time for maintenance, inventory stock accumulation), improved maintenance of equipment, increased investment in spare parts, training in quality management and an incentive programme to reduce absenteeism.

In an analysis of production problems in Jamaica, Shirley (1991) highlighted the following issues:

- a. Production systems in the manufacturing and, to some extent, the services sector are “ill-equipped to provide either the level of productivity, quality or flexibility to compete with international competitors using more modern systems” (p. 12). In effect, there was a lack of continuous upgrading of production systems and technology so that the state-of-the-art technology used in Jamaica lagged significantly behind international standards. Technological backwardness is perceived as a main source of the low level of productivity growth in Jamaica.
- b. The lack of human resources with the level of technical and problem-solving skills to

operate the required production systems effectively. Hence human resource underdevelopment complemented technological backwardness in explaining the low productivity growth.

- c. The sharp division between the line and staff workers in manufacturing and services enterprises which results in a lack of trust and adversarial industrial relations contribute to low productivity in Jamaica. The lack of 'trust' results in worker de-motivation and low levels of productivity (see Stone 1982; Carter, 1997 and Cowell, 1999).
- d. The government's protectionist policies which shield local enterprises from external competition and maintains a sense of complacency on the part of the management of enterprises. Enterprises are unable to engage in international benchmarking.

Ventura (1992) also highlights the lack of modern technology and the investment in human resources development as the main factors affecting productivity in Jamaica. He further notes that the educational and training system has not adequately addressed the science and technology needs of the country. There has been a heavy reliance on imported technology which the local workforce is poorly equipped to handle.

Stone (1992) points to a number of factors which can obstruct the implementation of productivity policies in Jamaica. These factors include:

- a. a poor response by the private sector to productivity incentives because of their lack of confidence in an uncertain economic environment;
- b. inappropriate investment of profits by the private sector which has been myopic and interested in quick high returns. A classic example is the boom in the financial sector in the 1980/90s relative to the poor performance in the real sector of the economy;
- c. the deep distrust between workers and management which demotivates workers;
- d. incentives offered are usually not large enough to have an impact on productivity;
- e. work norms and management styles are deeply embedded in work cultures and are constantly being fed by the non-work environment thus making it difficult to effect change in the workplace. Social relationships based on class, colour, ethnicity, residential location and education spill over from the wider society into the workplace;
- f. the competitive environment is blocked by unequal economic power between new and old capitalists and by the existence of powerful business groups who control the market place. Barriers to entry are created thus excluding potentially productive operators. These powerful enterprises can engage in lobbying and rent-seeking behaviour in order to maintain their monopolistic control.

During the 1990s, several initiatives were taken to boost productivity in Jamaica. In 1991, the Government of Jamaica established a tripartite productivity council. Through its secretariat, the Productivity Centre within the Jamaica Promotions Ltd (JAMPRO), the Council was able to mount a number of programmes to enhance productivity in several

enterprises. The productivity drive was linked to increases in wages and salaries and heralded the end of wage guidelines which formed part of the country's structural adjustment program during the periods 1975 to 1980 and 1987 to 1991. The productivity drive has not been as successful as in other countries, notably Barbados. The Council met irregularly and the degree of commitment to the drive was not very great.

Kirton (1992) reports on some of the early initiatives undertaken by the Council. She notes that technical assistance by the Productivity Centre boosted productivity in the apparel, furniture and agro-industrial sectors. Enterprises in these sectors employed a system of flexible specialization in order to enhance the efficiency of production. She also reports that the payment incentive schemes introduced to boost labour productivity in Jamaica lacked fairness and equity and raise the issue of distributive justice in organizations. Hussey (1991) also raised concerns about the genuineness of the performance-based payment schemes. In 1992, the Government sought to promote a tax-free productivity incentive on the portion of labour income directly related to the increase in productivity. The measure was later abandoned due to criticisms from the private sector and the difficulties associated with policing these productivity schemes (Hussey, 1991).

The bauxite/alumina industry has been able to develop a productivity incentive program to boost productivity in that industry. Panton (1990) and Lewis (1991) have documented the Alcan Jamaica Company (Aljam) experience. Panton (1990) argues that "one of the ways to increase people productivity at the workplace is the implementation of a policy of cooperation between management, other employees, unionized workers and their union representatives" (p.17). The Aljam productivity program involved the incorporation of elements of the productivity drive in the company's mission statement and the development of corporate values based on productivity. Both the mission statement and the corporate values were widely discussed by workers in the company. Employee involvement programs such as total quality management, occupational health and safety committees and human relations committees were established. Training and development of workers at all levels were emphasized. The centerpiece of the Aljam productivity drive was the institution of an incentive program in 1985 which involved the granting of monetary and other tangible rewards to employees who made implementable suggestions to enhance workplace performance. The scheme covered such areas as production, safety and the efficient use of raw materials. Lewis (1991) reports that there were improvements in productivity during the early stages of the program.

Calzado (2000) documents the case of Dairy Industries which developed a vision of total quality excellence (TQE) for the company. After being certified under the ISO 9002 system in 1995 and undertaking a restructuring exercise in 1996, when all the workers were severed, the company embarked on a human resource development program to boost productivity in the company. The program included continuous training, greater communication, teamwork, job rotation for multiskilling and job enrichment and linking increases in wages and salaries to employee performance.

Cowell, Crick and Wint (2001) and Crick (2001) have undertaken studies of six companies in Jamaica: Grace, Kennedy and Co; Desures and Geddes, Jamaica Broilers, Dairy Industries Ltd, J. Wray and Nephew and Jamaica Money Market Brokers (JMMB), to

identify the effect which workplace transformations have had on organizational productivity and competitiveness. They found that the trigger point for undertaking these transformations resulted from the process of trade liberalization and the need to improve profitability. These companies developed a transformation plan to re-engineer/re-structure their operations. The workplace transformations adopted by these companies involved:

- a. the mass redundancy of production workers;
- b. the upskilling and multiskilling of workers (training and development);
- c. the use of performance involvement in decision-making;
- d. the alignment of corporate culture to staffing and retention strategies (e.g., JMMBs concept of customer and employee love);
- e. improvement in the management-worker (union) relationship;
- f. teamwork, greater information sharing and communication.

As Crick (2001) points out, the costs of poor human resource strategies are reflected in low productivity and even with superior wages and salaries, productivity can be low, these companies focused on improving workplace relations as a means to improve productivity and gain competitive advantage. The authors of these studies report a significant improvement in productivity resulting from these workplace transformations.

Evidence specially collected from a survey of enterprises for this study indicates that human resource management factors – training of employees, the quality of the work force, the reduction of staffing and performance-based incentives – are the main elements affecting *labour productivity*. In addition, technological improvements and re-engineering of production processes/organizational development have affected labour productivity. The respondents also indicated that the main factors affecting *total factor productivity* include macroeconomic changes (inflation, increased taxes, devaluation/depreciation, etc), capital investment, automation/re-tooling/technological improvements, training of employees and focused management systems. In terms of initiatives implemented by enterprises over the past five years to raise productivity, these have included:

- a. training and development;
- b. performance/incentive based payment schemes;
- c. investment in new equipment and machinery;
- d. restructuring/re-organization of work processes.

Hotel chains such as Sandals and Super Clubs have engaged in ongoing training of staff in order to maintain their competitive advantage in the tourism market. The promotion of trust and good industrial relations between workers and management have been identified as key elements in raising labour productivity in Jamaica [Carter, 1997].

At the macro level, the Government has recognized the need to cultivate the environment to enhance productivity and hence competitiveness in Jamaica. It has implemented a number of training programs to cater to the technical needs of private enterprises. Taylor (1992) has identified a number of public programmes aimed at raising productivity of the urban poor. These programs have included the Social and Economic Support Programme (SESP) which provided employment and training along with micro credit and social infrastructural development; technical and vocational training via the HEART/NTA, small-scale investment through the Micro Investment Development Agency (MIDA) and industrial modernization, design and other forms of technical assistance through JAMPRO. The HEART/NTA has been reasonably successful in meeting the training needs for a wide range of enterprises [see Gregory, 1999]. It has, however, been recognized that the low skill base of a large percentage of the labour force is a result of a poor educational background. Jamaica has an illiteracy rate of 20 percent and a labour force with 80 percent indicating that they have received no training. Recent information on the informatics industry (especially call centres) highlights the illiteracy problem. Managers have indicated that only 1 in 10 persons pass the basic entry test needed for the industry. Furthermore, many teachers who apply for supervisory posts cannot speak properly and lack analytical skills. The Government has been engaged in educational reform aimed at increasing the quantity and quality of graduates from the school system. With the poor state of the economy and a high incidence of criminal activity, Jamaica has lost a significant portion of its labour force through migration to the USA and Canada. Over the period 1991 to 2000, emigration from Jamaica averaged over 20,000 with a high percentage of those reporting their occupation in professional, technical, executive, managerial and administrative categories. This loss in human resources which is not easily replaced at the same level of proficiency retards the growth in labour productivity in Jamaica.

Bloom et al (2001) emphasize the point that “the single most important factor influencing changes in per capita income – the resulting difference between Jamaican performance and that of the comparison group [of countries] in 1995 – lies in the difference in output per worker” (p. 23). They further state that while “Jamaica’s agricultural productivity has grown slightly faster than that of the comparison group, its service and manufacturing sector productivity has lagged significantly” (2001, p. 23). This productivity lag has resulted in the loss of export competitiveness experienced by Jamaica.

One study undertaken by the World Bank (1996) estimated total productivity growth in Jamaica at –0.65 percent per annum over the 1979 to 1994 period. This growth rate is significantly lower than that of many other developing countries such as those in South East Asia which have recorded total productivity growth rates of up to 3 percent per annum [World Bank, 1996]. Labour (employment) growth accounted for 75 percent of the change in total factor productivity while the growth in capital stock accounted for 25 percent. While there are usually problems associated with the measurement of the inputs, especially the capital input, the negative value for total productivity growth, coupled with the high contribution of labour (employment) growth, suggests that the source of the poor performance lies in the labour market.

The Bank also provided an estimate of the total factor productivity growth of -1.07 percent per annum over the period 1960 to 1990. Bartelsman (2002), in a recent study, also found

that total factor productivity growth in Jamaica was largely negative over the 1991-2000 period [see Table 11, Annex III]. In this study, however, capital growth accounted for the significant part of output 'growth'. Artana and Navajas (2002) have observed that the tax incentives structure in Jamaica is biased toward capital. Using a growth accounting decomposition procedure, Fajnzylber and Lederman (1998) provide evidence that total factor productivity increased by 0.7 percent over the 1950 to 1995 period. They also showed that total factor productivity was higher during periods of economic reforms in Jamaica.

The negative value for total factor productivity growth is similar to that obtained for Barbados and other Latin American countries over the past three decades [see Downes, 2002]. Several factors have been identified by Maddison (1987) and Oulton (1997) in their analyses of total factor productivity growth. These are *systematic* or *long-term* factors such as changes in economic structure due to changes in the elasticity of demand for goods and services and the differential pace of technical change between sectors; advances in technical knowledge, organizational changes, learning-by-doing effects, economies of scale and foreign trade effects. *Cyclical* factors such as labour hoarding/dishoarding and the use of capacity effects associated with the slack in physical capital also affect measured total factor productivity. In some cases, *ad hoc* factors such as an oil shock or discovery can affect productivity along with standard errors in measurement. Given the negative value of total productivity growth since the 1960s, it is likely that the long-term or systematic factors have not had a positive impact on productivity in Jamaica.

The World Bank (1996) attributes the low level of labour productivity in Jamaica partly to "deficiencies in the education and training system" (p. 18). It notes that approximately 67 percent of new job seekers do not have any form of certification and illiteracy tends to be high. The World Bank study further points out that in a survey of 255 firms in the mid-1990s, poor work habits were perceived by a high percentage of managers as a major constraint on growth and productivity (p. 46). Poor work habits/attitudes were partly due to three factors: a poor mass transit system which makes it difficult for workers to get to their jobs and results in worker frustration, the widening gap between managers and workers in the workplace (a reflection of the class division in the wider Jamaican society) and poor management practices (that is, managers tend to be authoritarian).

Poor worker-management relations led to a high degree of industrial disputes and work stoppages in Jamaica, especially from the early 1970s to the mid-1980s. The available data indicate that the majority of work stoppages which have a negative effect on labour productivity were due to wages and employment conditions [see Downes and Nurse, 2002]. Since the mid-1980s, there has been a steady decline in the number of disputes and stoppages. In addition, there has been a gradual movement away from an adversarial to a conciliatory approach to industrial relations during the 1990s. Such a movement may have contributed partly to the increase in labour productivity during the late 1980s and early 1990s.

Overall labour productivity in Jamaica may also be affected by the changing nature of the employed labour force. Anderson and Witter (1994) note that in the 1980s, new job creation took place in the 'secondary formal sector' and the 'informal sector' where jobs

require relatively low levels of human capital and there is a high degree of job instability and the absence of worker protection. Employment creation occurred in the export processing sector (free zones), tourism, small-scale services, retailing, domestic services, vending, higglering, peasant agriculture and personal services. Many of the activities in these sectors tend to be labour-intensive and exhibit a low level of productivity. An examination of the index of labour productivity by branch of activity indicates that in the 1990s, there was a decline in labour productivity in construction, finance and insurance, wholesale and retail and community, social and personal services [see Table 12, Annex III]. The sectors which showed some increase in productivity were agriculture, mining, manufacturing, electricity and gas and transport, storage and communication.

At a consultation to discuss the establishment of the proposed National Productivity Centre, the participants identified the following factors which are affecting productivity in Jamaica:

- a. distrust between managers and their employees;
- b. inadequate management competence in productivity management;
- c. a lack of meaningful participation of workers in the decision-making process;
- d. adversarial industrial relations;
- e. the absence of a clear link between effort and reward;
- f. the lack of adequate training of workers and managers;
- g. the absence of quality standards and measures;
- h. outdated plant and machinery;
- i. a weak infrastructure – roads, transportation, ports.

The participants also indicated a lack of information on productivity performance in Jamaica and on its role in the overall development process. These conclusions suggest that human resources development, new capital investment and an educational program are critical to the increase of productivity at the enterprise and sectoral levels.

5. Enhancing Productivity and Competitiveness: Policy Directions

The analysis in the previous sections pointed to a number of factors which have affected productivity and hence the degree of competitiveness of Jamaican enterprises. Enhancing competitiveness can be achieved by boosting the productivity of the factors of production (capital, labour, managerial ability), adopting a strategic exchange policy, maintaining a stable macroeconomic environment and lowering the overall costs of production and ‘doing business’ in Jamaica. Since productivity growth is critical to the competitiveness of enterprises, then a program of productivity management is needed. Such a program would involve new capital investment, human resource development, improved management-employee relations and appropriate incentive systems.

In this section, a number of policy measures for improving productivity and competitiveness are suggested in light of the review of the Jamaican experience. These measures are informed by a review of previous studies, interviews with key informants and survey responses from Jamaican enterprises.

An important **first** element in the policy mix is the need to maintain macroeconomic stability in Jamaica since this would create a business environment free of uncertainty and unanticipated costs. A ‘stable’ macroeconomic environment would entail low rates of inflation, lower interest rates for loans, low exchange rate variations, a reduced debt service ratio, a low fiscal deficit as a percent of GDP and balance on the balance of payment (BOP).

Over the past decade, the Jamaican government has been striving to achieve macroeconomic stability. The rate of inflation has declined significantly and the fiscal balance as a percent of GDP has been on the decline [see Table 1, Annex III]. However, the interest rates on loans have remained relatively high as the Government adopted a tight monetary policy stance. Jamaican enterprises have indicated that high interest rates are a main source of their uncompetitiveness since they add to the costs of production (especially working capital). The average weighted commercial bank loan fell from a peak of 49 percent in 1993 to 19.5 percent in 2001, while the inflation rate has declined from a peak of 80 percent in 1991 to 8.7 percent in 2001. Greater effort is needed to lower the loan rates in an effort to ease the financial cost burden of Jamaican enterprises.

The nominal exchange rate increased from J\$8.17 for US\$1 in 1990 to J\$47.40 for US\$1 in 2001. While this depreciation in the Jamaican dollar may boost the competitiveness of certain sectors (e.g., tourism), it also increases the costs of imported goods and services in Jamaican currency units. For enterprises with a high percentage of imported inputs, the costs of production increases significantly. Furthermore, the depreciation increases the value of the foreign debt denominated in Jamaican dollars. The variability in the depreciation of the nominal exchange rate creates uncertainty in the business environment

and adds to transaction costs. Hence stabilization of the exchange rate and lowering of interest rates are necessary conditions for boosting export competitiveness.

A **second** area of policy focus is in the area of human resources development (HRD) through education and training in new or frontier skills. In a dynamic business environment, enterprises need to stay competitive by boosting the productivity of their workforce through re-training and education. Surveys of Jamaican enterprises and interviews with key informants emphasized the critical role of HRD in boosting productivity and hence competitiveness. Some efforts are being made to promote HRD in Jamaica. The HEART/NTA has been at the forefront of technical and vocational training in Jamaica. It has made information technology and entrepreneurship training mandatory in its programs. In addition, it has sought to inculcate a positive work attitude in its graduates and encourage them to be more entrepreneurial. While Jamaica has universal primary level education, there are still fundamental problems at the secondary and tertiary levels. The Government has introduced a reform program to enhance the quality of secondary level education and move towards its universality.

Jamaica has experienced a high degree of emigration of skilled labour over the years due to the poor economic performance of the country and a high incidence of crime. This emigration has robbed the economy of key resources which are needed to boost productivity. There is a need to design incentives to attract Jamaicans back to the country in an effort to re-build the economy. For example, Jamaican nationals should be encouraged to set up new businesses through a fiscal incentives scheme which would allow them to import raw materials and capital equipment at low or zero import duties and other taxes provided they export a given percent of their final product to extra-regional markets. Such a scheme would allow Jamaican businesspersons to use their acquired expertise and marketing contacts in developed countries. At present manufacturers can import raw materials and capital goods duty free, and under the modernization programme, the general consumption tax on capital goods is waived. A further incentive can involve a moratorium on corporate income tax for such new business ventures.

A further aspect of the HRD process which can aid productivity and competitiveness is management development. One of the problems identified with the low level of productivity in Jamaican enterprises is the poor quality of supervisory and general management. Although there are a number of management institutions operating in the country, these have not been able to cultivate the managerial expertise needed to adequately promote productivity. Associated with the need for management development training, there is a need for greater organizational development aimed at promoting a high-performance culture, transformational leadership, teamwork, planning and decision-making, communication, information and trust. The degree of distrust has been a barrier to good management-employee relationships and motivation of employees.

A **third** policy aspect of the productivity-competitiveness nexus is the development of gainsharing schemes which would link compensation (i.e., workers' pay) to organizational productivity/performance. Gainsharing schemes have been used to boost productivity/performance in organizations since they permit the distribution of any gains achieved from exceeding expected targets. Schemes have been employed in Barbados with some measure

of success [see Downes and Alleyne, 1998]. Over the years, various attempts have been made to introduce such schemes (e.g., profit-sharing, productivity bonus), but they have not been sustainable. In recent years, the bauxite industry in Jamaica and a selection of hotels have been using such gainsharing schemes. Grace Kennedy and Company Ltd. and other enterprises have developed performance-based payment schemes which have assisted in boosting worker motivation and performance.

In the case of the bauxite scheme, tax-free status has been allowed for productivity-determined bonus payments. With the establishment of the National Productivity Centre, the promotion of such schemes should be given high priority since they also promote information-sharing and trust between workers and employers if properly designed and managed.

At the national level, a **fourth** policy area is the promotion of productivity and competitiveness through the establishment of social partnership involving the Government, employers and workers through their representatives. Barbados provides a model where there has been some degree of success with the social partnership and dialogue model of consultation. While sector memoranda of understanding have been signed by the social partners, there is a need for a national memorandum which commits all the parties to the national effort. The establishment of the social partnership would initiate the process of dialogue, communication and trust-building which is needed for productivity growth. The proper implementation and administration of the partnership would be vital to its survival. The partnership should focus on building 'social capital' for national development.

A **fifth** policy area is related to the reduction of bureaucratic red tape which increases 'transaction costs' (i.e., the costs of doing business in Jamaica). The objective would be achieved through a renewed attempt at public sector reform aimed at developing new operational procedures for the approval of requests – Customs, Town and Country Planning, Ministries and the coordinating of the activities of various ministries. A related area of operation is the enhancement of the social infrastructure and social services – roads, ports, health, education, and transportation. The poor infrastructural facilities and associated services have been identified as one of the factors resulting in absenteeism, lateness, low motivation and low productivity. The Government also needs to take determined measures to reduce the incidence of criminal activity since high security costs have eroded any competitive advantage which Jamaican enterprises may have had in the past.

One of the problems associated with low productivity and the lack of competitiveness of Jamaican enterprises is the use of old technology in the production process. Hence a **sixth** policy direction is the need to provide financial and technical support for enterprises to retool and modernize their operations. Such retooling and modernization would involve the use of information technology and new machines/equipment in the production process along with the employment of bio-technological methods in the agro-processing and agricultural sector. The lack of innovation and the absence of science and technological development have been identified as a problem plaguing the agricultural and manufacturing sectors. In some cases, small and medium-sized firms have been unable to gain access to new developments because of their costs. The provision of financial resources would not

only promote national innovation and technological change but also ensure access to a wide range of enterprises. Associated depreciation allowances can be permitted in sectors/industries subject to rapid technological change and obsolescence. Some large enterprises – Desnoes and Geddes (Red Stripe) and Jamaican Poultry Breeders Association – have been granted concessionary loans for re-tooling their operations and training of staff. Such loans can be extended to other enterprises.

A related area associated with the retooling (re-capitalisation) of enterprises is the need to re-schedule the debt of a number of enterprises. Many enterprises have been experiencing severe cash flow and debt problems which have undermined their efficiency. Financial agencies would need to discuss with many of these small and medium-sized enterprises options for easing their cash flow problems. A strategy of cost containment would be needed by several operations if there are going to remain competitive. Such cost containment, to reduce wastage must however be complemented by the reduction of the tax burden faced by several small and medium-sized enterprises (e.g., special taxes and levies) and also the high rates of interest on loan financing.

A **seventh** area of policy formulation is export marketing in the context of a liberalized trading environment. Several enterprises need technical and financial assistance with the marketing of their goods and services in extra-regional markets. Such marketing actions must be formulated in the context of a new trade policy framework which includes targeting non-traditional markets for Jamaican products. With proposed formulation of the Free Trade Area of the Americas, Jamaican enterprises would have greater access to Latin American markets. Singh (2002) has identified several critical success factors for the export of non-traditional exports based on the experience of the Jamaican papaya industry. These include:

- a. the selection of strategic goods/services to gain competitive advantage;
- b. the targeting of mainstream markets (in addition to ethnic markets);
- c. the development of a marketing leverage (e.g., a focus on quality, uniqueness, presentation);
- d. the development of economies of scale in marketing.

A recent IDB (2002) report points to the benefits of regional integration in promoting productivity. The formation of the Caribbean Single Market and Economy can offer Jamaican firms the opportunity to realize such gains. The Government can work with enterprises in the export sector – agriculture, manufacturing, tourism – to develop a marketing strategy focusing on a selection of the key elements of competitiveness: quality, volume, product flow, price and reliability. While a depreciation of the currency may bring a short term competitive advantage, such an exchange rate policy must be complemented by supply-side policies which boost the productivity of enterprises and capitalize on key elements of competitiveness. Jamaican enterprises must also be engaged in international benchmarking in the areas of productivity management and competitiveness. Enterprises must meet the international operations standards in order to survive a liberalized economic

environment. Greater funds must be devoted to entrepreneurial development and also for research and development. Garvey (2002) has called for a change in the mindset of managers where the export market is concerned.

6. The Role of Institutions

Institutions will have to play a key role in promoting/facilitating productivity growth and improved competitiveness in Jamaica. Based on the responses from a survey of enterprises and interviews with key informants, the government, labour unions, private sector organizations and international development institutions have critical roles to play in the process.

The *government* needs to stabilize the economy, reduce interest rates and taxes, improve the education/training system, reduce bureaucracy/red tape, provide tax incentives and control criminal activity/improve national security. The *labour unions* are expected to provide responsible leadership, educate workers to be more productive, promote the linking of wage/salary increases to improvements in productivity/performance and also support the establishment of a social partnership involving all parties.

Private sector organizations should encourage good management practices in enterprises, promote greater collaboration amongst themselves and with government, lobby for more incentives, promote social dialogue and invest more in education and training. These agencies should work with the government to promote efficiency in the public utilities (port, electricity, transportation) and provide financial and technical support for enterprises.

International financial institutions such as the IMF, UN, IADB, World Bank, regional institutions such as the Caribbean Development Bank and national agencies such as USAID and DFID have invested a significant amount of resources in the Jamaican economy over the past three decades. Yet, the economy has not performed at the expected level. While there is a need for donor coordination of technical and financial assistance, there are still areas which this research project has identified for additional assistance. Eleven areas were identified by key informants for additional assistance. These include:

- a. entrepreneurial development;
- b. business incubation;
- c. product development (especially high value added products);
- d. training in the areas of management, technical and vocational activities;
- e. promotion of links and clusters with other countries;
- f. research and development in support institutions such as JMA, JEF, PSOJ, trade unions;
- g. business plan preparation and implementation;
- h. production and operations management – plant design/layout, database development;

- i. funding of agriculturalists in new techniques of production, marketing and management;
- j. organizational development – management, leadership and related activities;
- k. development of new organizations such as the National Productivity Council, the new Private Sector Organisation of Jamaica , trade union congress.

These areas would require specific project proposals for financial and technical assistance. In addition, there is a need to support a national effort to promote productivity and competitiveness using a broader social partnership. The Government, all employers and workers must ‘buy in’ to the effort in order to ensure the long-run survival of the Jamaican economy.

Annex I

Wages, Labour Productivity, the Exchange Rate and International Competitiveness

The impact that changes in the wage rates, labour productivity and the exchange rate have on international competitiveness can be shown through the following relationships:

Suppose we have two countries A and B; then define the real unit labour costs (RULC) of the two countries as the ratio of the real wage rate (w) to labour productivity (lp), that is:

i. $RULC_A = w_A / lp_A$

ii. $RULC_B = w_B / lp_B$

Define the degree of competitiveness between the two countries as:

iii. $comp(A/B) = \Pi(A/B) \cdot RULC_A / RULC_B$

where $\Pi(A/B)$ is the nominal exchange rate between the two countries defined as the ratio of the number of currency units of the B country for a unit of A's currency unit. A **fall** in $comp(A/B)$ indicates that country A is **more competitive** than country B.

Substituting (i) and (ii) into (iii) and taking logs, then

iv. $\ln comp(A/B) = \ln \Pi(A/B) + (\ln w_A - \ln w_B) - (\ln lp_A - \ln lp_B)$

Differentiating with respect to time, we have the growth form of equation (iv) given as:

v. $gcomp(A/B) = g\Pi(A/B) + (g w_A - g w_B) - (g lp_A - g lp_B)$

Equation (v) indicates that the growth in export competitiveness of a country A relative to Country B is influenced by:

- (a) changes in the exchange rate (that is, a *fall* in the exchange rate as defined above – devaluation or depreciation) result in a change in the degree of export competitiveness (that is, an *increase* in competitiveness)
- (b) growth in the relative real wages (that is, a *decrease* in real wages in A relative to B, enhances export competitiveness)
- (c) growth in relative labour productivity (that is, an *increase* in labour productivity in A relative to B, *enhances* export competitiveness)

If the real exchange rate (RER) is defined as the product of the nominal exchange rate times the ratio of foreign to domestic prices, then equation (v) can be adjusted to reflect this definition.

vi $RER = \Pi(A/B)^* \cdot P_B / P_A$

where P_B is the index of foreign prices and P_A is the index of domestic prices. The nominal exchange rate is defined as the number of A's currency units for one of B's currency units.

The basic equation (v) becomes:

$$\text{viii} \quad g_{\text{comp}}(A/B) = g_{\Pi(A/B)^*} + (g.p_B - g.p_A) + g(w_A - w_B) - (g.p_A - g.p_B)$$

The second term on the right hand side (RHS) reflects a price inflation differential between the countries, while the third term is the **nominal** wage inflation differential.

Both equations (v) and (vii) indicate that an analysis of international competitiveness requires an understanding of factors affecting exchange rate movements, inflation rate, wage increases and labour productivity. These relationships allow the analyst to develop a simultaneous equation model incorporating both economic and non-economic variables.

It is possible to extend the analysis to incorporate other countries (hence the use of a real effective exchange rate (REER)) and other factors of production (hence other forms of factor productivity).

Annex II

Questionnaire

A Survey of Productivity and Competitiveness in Jamaican Enterprises

ALL INFORMATION WILL BE HELD IN STRICT CONFIDENCE

A. Background

- 1 Name of enterprise
- 2 Start-up date of enterprise
- 3 Main products.....
- 4 Size of enterprise
- i. Employees (2001 or latest year)
- ii. Sales (2001 or latest year).....
- iii. Assets (2001 or latest year).....
- 5 Location of enterprise.....
- 6 Position of person completing the questionnaire

B. Factors Affecting Productivity

Definitions

*In this section **productivity** is defined as the relationship between the amount of **output** produced (goods and services) **relative to** the amount of **inputs/resources** used (labour, machinery, equipment, raw materials, energy, etc).*

Two concepts of productivity are used:

- i. **labour** productivity (that is, output produced relative to labour resources used – number of labour hours or number of persons)
- ii. **total factor productivity** (that is, output produced relative to all inputs used).

- 1 a. Over the past 5 years (1998-2002) indicate the 'general trend' in your enterprise with respect to:

	Constant	Falling	Increasing
i. Labour Productivity	_____	_____	_____
ii. Total Factor Productivity	_____	_____	_____

- b. If productivity has been 'falling' or 'increasing' over the past 5 years, please indicate the extent of the change

i. Labour productivity	_____ % per year
ii. Total factor productivity	_____ % per year

- 2 Identify the main factors which have affected productivity in your enterprise over the past five years (1998-2002):

- a. Labour Productivity:

- i. _____
- ii. _____
- iii. _____
- iv. _____

- b. Total Factor Productivity

- i. _____
- ii. _____
- iii. _____
- iv. _____

- 3 Have you introduced any measures which have enhanced productivity over the past 5 years (1998-2002)?

- a. Labour productivity Yes _____ No _____

If yes, please specify, _____

b. Total Factor Productivity: Yes _____ No _____

If yes, please specify _____

If the answers to (a) and (b) are 'No', please indicate the reason(s)

4 What can be done by the following agencies to enhance productivity in Jamaica?

a. Government _____

b. Trade Union Movement _____

c. Private Sector Organizations _____

d. Any other agency (please specify) _____

C. Costs of Production

1 Indicate the relative contributions of the following components to total costs.

Item	Percentage Contribution to total costs (%)
-------------	---

Wages and salaries	_____
--------------------	-------

Other labour-related costs	_____
----------------------------	-------

Raw materials	_____
---------------	-------

Fuel and energy	_____
-----------------	-------

Interest charges	_____
------------------	-------

Security	_____
----------	-------

Taxes	_____
Other elements	_____
Total	100.00

2 Indicate how the following components of costs have changed over the past five (5) years

Item	Constant	Increase	Decrease
Wages/salaries	_____	_____	_____
Other labour-related costs	_____	_____	_____
Raw materials	_____	_____	_____
Fuel and energy	_____	_____	_____
Interest charges	_____	_____	_____
Security	_____	_____	_____

Item	Constant	Increase	Decrease
Taxes	_____	_____	_____
Other elements	_____	_____	_____

D. Factors Affecting Competitiveness

Definition

Competitiveness can be defined at three (3) levels:

- i. Company/firm level: “the ability to design, produce and/or market products superior to those offered by competitors, considering the price and non-price tangibles” and hence secure profitability.
- ii. Sectoral/industry level: the “extent to which a business sector [or industry] offers potential for growth and attractive return on investment”
- iii. Country level: the “extent to which a national environment is conducive or detrimental to business”, thereby enhancing the capacity of the economy to improve the standard of living.

- 1 a. Over the past five years (1998-2002), indicate the 'general trend' in competitiveness at the following levels:

	Constant	Falling	Improving
Your enterprise	_____	_____	_____
Sectoral/industry	_____	_____	_____
Country	_____	_____	_____

- b. If you indicated 'falling' or 'improving' can you give reasons?

- 2 Identify the **main** factors which have affected competitiveness over the past five years:

a. Enterprise _____

b. Sector/Industry _____

c. Country _____

- 3 What percentage of your sales went to the following markets (over the past 5 years)?

Market	Percent(%)
Domestic (Jamaican)	_____
Regional (CARICOM)	_____
Extra-Regional	_____
TOTAL	100

- 4 What measures have you taken over the past **five years** to boost competitiveness in the following markets?
- a. Domestic _____
 - b. Regional _____
 - c. Extra-Regional _____
- 5 To what extent would increasing productivity boost your enterprise's competitiveness?
- 0-20% _____ 20-40% _____ 40-60% _____
- 60-80% _____ 80-100% _____
- 6 What can be done by the following agencies to enhance competitiveness in Jamaica?
- a. Government _____

 - b. Trade Union Movement _____

 - c. Private Sector Organizations _____

 - d. Other Agencies (please specify) _____

- 7 What are the main factors affecting your ability to **increase** your exports to:
- i. Regional (CARICOM) markets? _____

ii. Extra-regional markets? _____

8 How long have you been exporting? To which countries?

Years _____ Countries _____

9 Who are your main competitors?

Local _____ Regional _____ Extra-regional _____

In what way(s) has exporting helped your enterprise? _____

10 What views do you have regarding the enhancement of productivity and competitiveness in Jamaica? _____

THANK YOU VERY MUCH FOR YOUR KIND ASSISTANCE

Annex III

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Table 1. Some Economic Indicators for Jamaica: 1980-2001

Year	Growth of Real GDP (%)	Inflation Rate (%) ¹	Unemployment Rate (%)	Fiscal Balance as a % of GDP ²	Overall BOP Balance (US\$m)
1980	-5.7	27.3	26.8		- 87.0
1981	2.6	4.6	25.6		-289.0
1982	1.2	6.5	27.9		-124.0
1983	2.3	16.7	26.9	-13.6	-362.0
1984	-0.9	31.2	25.4	-4.4	153.3
1985	-4.6	23.4	25.6	-2.8	- 70.8
1986	1.7	10.4	22.3	-1.9	- 78.0
1987	7.8	8.4	20.8	2.2	-299.9
1988	2.9	8.5	18.9	-6.1	78.0
1989	6.8	17.2	16.8	2.8	171.8
1990	5.6	29.8	15.7	0.2	129.5
1991	1.1	80.2	15.7	4.2	-21.3
1992	1.9	40.2	15.9	4.0	248.3
1993	2.0	30.1	16.0	3.3	109.9
1994	0.9	26.8	15.3	3.3	357.7
1995	1.0	25.6	16.88	2.1	27.0
1996	-1.3	15.8	16.3	-6.9	271.4
1997	-1.8	9.2	15.7	-8.4	-170.4
1998	-0.4	7.9	15.5	-7.6	43.4
1999	-0.4	6.8	16.0	-4.7	-136.4
2000	0.8	6.1	15.6	-1.1	518.4
2001	1.8 ^p	8.7	16.0	n.a.	n.a.

Note: 1. point to point (Dec–Dec) rate. 2. Fiscal balance excludes amortization and applies to the fiscal year.

Sources

- i. Bank of Jamaica: *Statistical Digest*, January 2002, pp. 112, 120
- ii. PIOJ/UNDP: *Jamaica Human Development Report 2000*, p. 8
- iii. Alleyne (2001), PIOJ
- iv. IMF: *International Financial Statistics Yearbook 2001* and *Balance of Payments Statistics Yearbook*, 2001.

Table 2. The Balance of Payment of Jamaica, 1980-2000 (US\$ mil)

Year	Trade Balance	Current Account Balance ¹	Capital and Financial Account Balance ²	Overall Balance ³
1980	-76	-166	79	-87
1981	-323	-337	48	-289
1982	-442	-409	285	-124
1983	-439	-359	-3	-362
1984	-335	-315	469	153
1985	-436	-273	203	-71
1986	-248	-18	-60	-78
1987	-352	-126	426	300
1988	-357	47	31	78
1989	-590	-283	111	-172
1990	-502	-312	442	130
1991	-392	-240	219	-21
1992	-425	29	220	248
1993	-815	-184	244	110
1994	-551	82	267	358
1995	-829	-99	119	27
1996	-994	-143	405	271
1997	-1132	-332	152	-170
1998	-1131	-328	329	44
1999	-1187	-211	84	-136
2000	-1354	-275	844.	518

Notes: ¹Excluding Exceptional Financing²Including errors and omissions but excluding Reserve Assets, use of Financial Credit and Exceptional Financing³Excluding Reserve Assets, use of Final Credit and Exceptional Financing

Source: IMF, International Balance of Payments Statistics Yearbook, 1992, 2001

Table 3. Distribution and Change of Exports from Jamaica by Country, 1980-2000(%)

Year	Industrial Countries		Developing Countries		Other	
	Distribution	Growth	Distribution	Growth	Distribution	Growth
1980	79.9	14.0	14.9	0.8	5.2	11.9
1981	78.2	-1.1	20.3	37.5	1.5	-71.0
1982	78.0	-21.4	20.7	-19.5	1.3	-33.6
1983	79.3	-9.1	18.9	-18.2	1.7	20.1
1984	81.8	11.9	12.8	-26.9	4.9	213.9
1985	78.7	-26.4	15.0	-10.3	5.0	-21.5
1986	83.1	8.3	11.6	-20.1	4.5	-8.2
1987	85.8	25.5	9.4	-1.3	4.2	12.9
1988	86.6	22.7	9.0	15.9	4.0	17.2
1989	85.2	12.1	12.2	54.7	2.2	-36.9
1990	82.0	11.1	17.6	40.4	2.2	19.0
1991	84.7	6.3	15.1	-11.5	2.0	211.3
1992	87.4	19.4	12.4	-4.7	n.a.	10.0
1993	81.1	10.5	11.7	3.7	n.a.	19.0
1994	86.3	6.3	13.5	17.6	n.a.	19.0
1995	86.9	12.8	13.0	7.1	n.a.	23.0
1996	85.5	5.8	14.4	19.7	n.a.	18.0
1997	82.8	-7.2	17.1	13.3	n.a.	10.0
1998	86.4	-25.7	13.5	-43.5	0.1	n.a.
1999	87.2	-4.3	12.5	-12.2	0.2	99.1
2000	91.3	9.3	8.6	-28.2	0.1	-64.0

Source: IMF, *Direction of Trade Statistics Yearbook* (1987, 1991, 1992, 1997, 2001)

Table 4. Exports and Imports for Jamaica, 1980-2000

Year	Exports US\$mil	Exports as a % of GDP	Imports US\$mil	Imports as % of GDP
1980	963	50.7	1095	51.7
1981	974	47.0	1473	56.5
1982	767	37.8	1381	48.7
1983	718	33.7	1494	41.3
1984	747	53.4	1146	61.3
1985	566	56.1	1111	67.6
1986	589	52.9	972	49.2
1987	706	51.5	1238	50.5
1988	880	47.5	1454	51.4
1989	998	46.8	1852	57.4
1990	1158	52.2	1928	56.3
1991	1105	58.6	1823	60.5
1992	1047	69.6	1676	70.7
1993	1071	59.1	2132	68.6
1994	1212	76.1	2224	76.5
1995	1427	70.4	2818	76.8
1996	1383	61.1	2965	70.5
1997	1383	54.8	3131	65.1
1998	1312	49.2	3035	57.8
1999	1240	n.a.	2899	n.a.
2000	1296	n.a.	3216	n.a.

Source: IMF, International Financial Statistics Yearbook, 1992, 2001

Table 5. Index of Economic Freedom for Selected Caribbean Countries 1995-2002

Year	Jamaica		Barbados		Trinidad and Tobago	
	Index	Rank	Index	Rank	Index	Rank
1995	2.90	(34)	-	-	-	-
2000	2.50	(37)	2.50	(37)	2.35	(31)
2002	2.90	(60)	2.30	(26)	2.45	(35)

Notes

- i. The lower the index, the greater the degree of economic freedom
- ii. A value of 5 indicates no freedom while a value of 1 indicates full freedom
- iii. The figures in brackets indicate the ranking of the countries considered in the calculation of the index.

Source: Heritage Foundation: <http://cf.heritage.org>.

Table 6. Long Term Foreign Currency Sovereign Standard and Poor's Rating for Selected Countries

Country	December 14, 2000			June 22, 2001		
	Rating	Outlook	Grade	Rating	Outlook	Grade
Jamaica	B	Positive	Speculative	B ⁺	Stable	Speculative
Barbados	A ⁻	Stable	Investment	A ⁻	Stable	Investment
Trinidad/Tobago	BBB ⁻	Stable	Investment	BBB ⁻	Stable	Investment
Costa Rica	BB	Positive	Speculative	BB	Positive	Speculative
Dom. Republic	B ⁺	Stable	Speculative	B ⁺	Positive	Speculative

Source: Bank of Jamaica, *Quarterly Monetary Policy Report*, October-December 2000 and April-June, 2001.

Table 7. Competitiveness Drivers by Sector

Sector	Competitiveness Drivers
<i>Banking and Insurance</i> (First Life, Bank of Nova Scotia)	Focus, Risk Management, Industry Knowledge, Leadership, International Benchmarking
<i>Tourism and Entertainment</i> (Sandals, Super-Clubs, Pulse)	Innovation, Leadership, Factor Conditions, Responsiveness to Competition, Quality Focus, Industry Knowledge, Benchmarking
<i>Retail Distribution and Communication</i> (Courts, Hardware and Lumber, Super Plus Food Stores, Island Grill, Gleaner)	Responsiveness to liberalization and competition, International Benchmarking, Leadership, Risk Management, Aggressive Marketing, Industry Knowledge, Quality Focus
<i>Agri-Processing Food and Beverage</i> , (Lascelles, Grace Kennedy, Jamaica Broilers, Desnoes and Geddes, Lasco Food, Jamaica Drink Co)	Leadership, Branding Work Transformation, International Benchmarking, Responsiveness to Deregulation, Quality Focus, Innovation, Technology Focus, Marketing and Distribution, Industry Knowledge, Risk Management
<i>Manufacturing and Marketing</i> (Berger, Starfish Oils)	Leadership, Training, International Benchmarking, Strategic Alliances, Risk Management, Quality Focus

Source: Wint (2001), p. 82

Table 8. Impact of Selected Factors on the Competitive Advantage of Jamaica

Factor	Rank	Percent
Interest Rates	1	68.2
Infrastructure	2	42.6
Accessibility to Capital	3	36.4
Import Duties	4	33.3
Skill Availability	5	31.8
Productivity	6	26.2
Numeracy/Literacy	7	21.5
Attitude to Non-managers	8	19.0
Labour Relations	9	17.0
Aptitude	10	15.5

Source: N. Cowell: National Survey of Workplace Practices (reported in Workforce News, Vol 2, Issue 1, February-March 1999, p. 1, 4.

Table 9. Impact of Labour-Related Factors on Competitive Advantage of Jamaican Enterprises (%)

Factor	Negative Impact	No Impact	Positive Impact
Labour Relations	17.2	44.3	38.5
Productivity	26.2	33.3	40.5
Worker Skill Levels	18.5	28.2	53.3
Worker Literacy/Numeracy	21.5	38.5	40.0
Aptitude	15.5	27.8	56.7
Worker Attitude	19.0	35.9	45.1
Avail of Skilled Employees	31.8	31.3	36.9

Source: N. Cowell: National Survey of Workplace Practices (reported in *Workforce News*, vol 2, Issue 1, Feb-March, 1999, p. 1, 4.

Table 10. Gross Capital Formation and Final Consumption Expenditure as a Percentage of GDP, 1980-2000

Year	Capital Formation %	Consumption Expenditure %
1980	15.9	86.2
1981	20.3	90.0
1982	20.9	90.7
1983	22.3	89.8
1984	23.1	83.6
1985	24.3	85.5
1986	28.5	78.4
1987	22.2	77.4
1988	25.6	78.9
1989	28.6	80.8
1990	26.4	77.5
1991	24.6	76.6
1992	29.1	71.8
1993	29.7	78.9
1994	28.1	78.4
1995	29.7	80.9
1996	30.1	81.8
1997	30.3	83.0
1998	27.2	83.3
1999	25.6	84.4
2000	26.8	84.2

Source: IMF, International Financial Statistical Yearbook, 1992, 2001

Table 11. Growth Accounting for Jamaica 1991-2000

STATIN ESTIMATES			
	1991-96	1996-2000	1991-2000
Output Growth (g_y)	1.4	-0.2	0.7
Capital Growth (g_k)	1.3	0.8	1.1
Labour Growth (g_l)	0.8	-0.4	0.3
Total Factor Productivity Growth (g_A)	-0.7	-0.7	-0.8
ADJUSTED ESTIMATES*			
Output Growth (g_y)	3.5	0.3	2.1
Capital Growth (g_k)	1.3	0.8	1.1
Labour Growth (g_l)	0.8	-0.4	0.3
Total Factor Productivity Growth (g_A)	1.4	-0.1	0.7

Notes: *indicates an adjustment to the official STATIN data to reflect imputed bank charges which were added to the 'other service' sector.

Source: Bartelsman (2002)

Table 12. Labour Productivity Growth in Jamaica by Sector 1991-2000 (%)

Sector	Labour Productivity Growth (%)
Agriculture	2.6
Mining	3.4
Manufacturing	2.7
Electricity/Gas/Water	3.2
Construction	-5.5
Transport/Storage/Communication	1.2
Hotels/Restaurants	0.1
Wholesale/Real Estate/Business Services	-0.4
Finance/Real Estate/Business Services	-0.4
Community Services	-0.8
Government	-1.2
Total Economy	0.2

Annex IV

List of Figures



