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ACP EXPORT DIVERSIFICATION: THE CASE OF MAURITIUS

Matthew McQueen

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Preface and acknowledgements

This report forms part of a broader analysis by ODI of export diversification by the African, Caribbean and Pacific (ACP) group under the Lomé Conventions. The other parts of the project included a major analysis of trade statistics, the early findings of which were reported in McQueen and Stevens 1989(a), and country case studies in Ethiopia, Kenya, Mauritius and Zimbabwe. The objective was to discover whether the provisions of the Lomé Conventions have facilitated ACP diversification into non-traditional exports and whether there are improvements that could be incorporated into Lomé IV (either by amendments to the text or through changes in implementation procedures) that would strengthen the process.

The study has been undertaken against a background of widespread criticism of the Lomé Conventions, and other preferential trade agreements, implying that they have had little impact on actual trade flows. The assumption behind this study is that such conclusions cannot be drawn from an analysis of aggregate trade figures because a high proportion of ACP exports receive very little preference (because MFN tariffs are either zero or low) and are in products with volatile world markets. If the impact of the Lomé Convention is to be assessed, it must be done at a disaggregated level. For this reason, the project concentrated on non-traditional commodities, particularly those where the margin of preference was high (eg clothing and CAP products).

The analysis of trade statistics undertaken in the first stage of the project indicated which countries had begun to export which products, but it did not explain why this had happened, nor did it indicate whether there were residual restrictions in the EC market that had prevented an even more rapid diversification. The objective of the country case studies was to deal with these two neglected areas. The countries were selected because they featured prominently in the trade analysis and, between them, they covered a number of the main ACP sub-groups.

Grateful thanks are given to the many people who generously gave of their time to help with the field work in Mauritius and especially to Mr. Aneerood Dozekee, Senior Trade Officer, Ministry of Trade, who very kindly organised all the meetings, and to the Ministry of Economic Planning and Development, and MEDIA, who supplied additional statistics on the EPZ. Funding for the research was provided by the UK Leverhulme Trust. Needless to add, neither those who helped with the project nor the Leverhulme Trust are in any way responsible for the statements made in this report.

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I. MAURITIUS: A CASE STUDY OF SUCCESSFUL EXPORT DIVERSIFICATION UNDER ADVERSE CONDITIONS

Mauritius accounts for 27% of the non-traditional exports identified in this study and in that sense cannot be regarded as a "typical" ACP country. However, this success is of very recent origin and until the mid-1970s, Mauritius was almost wholly dependent on sugar for its merchandise exports. This factor, combined with its relative geographical isolation, makes it instructive to analyse the basis for the transformation of its exports so that other ACP states may evaluate the scope for emulating this success (and perhaps avoiding some of the risks), and for utilising the provisions of the Lomé Convention to diversify exports.

Mauritius is a small tropical island of approximately 45 km by 35 km located in the western side of the Indian Ocean and some 2,000 kms from the East Coast of Africa and 3,200 kms from India. Population growth during the 1950s and 1960s was 2% p.a. rising to just over 3% p.a., so that at the beginning of 1988 the total population was just over 1 million with a density of 558 per sq km - second only to Bangladesh (except for the city state of Singapore) and 2.4 times that of the UK. The economy was, until recently, almost wholly dependent on the export of sugar to the UK, and James Meade in his report on the colony before independence in 1968 described it despairingly as a "case study in Malthusian economics". During the first four years after independence, growth was slow and unemployment became a major problem. Between 1973 and 1979 the economy grew rapidly but this was reversed with the second oil crisis, so that by the early 1980s unemployment probably exceeded 20% and the inflation rate rose to over 30% p.a. A balance of payments crisis forced a 30% devaluation in 1979, with further structural adjustments in 1980 and 1986, assisted by IMF credits.

Since 1984, the economy has been transformed, with GDP at constant prices increasing by an estimated 39% over the period 1984-1989 and employment by 34% in 1984-88. With a per capita GNP of about $1,800 (a 34% increase since 1981), life expectancy of 71 years for women and 64 for men, an infant mortality rate of 22 per thousand live births and a literacy rate of over 90%, Mauritius can be said now to have the standard of living of a middle income country. Furthermore, the supply response of the export sector, and the attractiveness of the economy to overseas investors, quickly turned the overall balance of payments into a record surplus in 1987, equivalent to 12% of GDP at market prices, while the repayment of debts has reduced the debt service ratio to a very manageable level of 6%. Underpinning the decreased need for foreign borrowing has been a high gross domestic savings rate, which steadily increased from 15.4% in 1982 to 28.5% in 1986, declining to around 23.5% in 1989. The economy has been so successful that despite this high saving rate, there are clear signs of overheating. Inflation has increased from 0.6% in 1987 to 9.2% in 1988 and an estimated 13% in 1989. Unemployment has fallen to less than 5% (which may exceed the "true" rate because registration for unemployment provides access to benefits such as special loans at concessionary rates, access to Government training programmes and social security benefits), and employers are reporting a shortage of labour in all sectors of the economy. Rising prices and a tight labour market has produced mounting pressure for substantial increases in earnings, while continued devaluation[1] in an attempt to maintain competitiveness, may simply add to inflationary pressures.

The problem of Mauritius is therefore that of "managing success" (to use the title of a recent - 1989 - World Bank report) and the reverse of that of other ACP countries. There are, of course, many reasons for this successful development, but to quote the World Bank report "there is little doubt that the Lomé Convention has been one of the most important catalysts to the growth of manufactured exports in Mauritius", while exports of manufactures have been the fundamental basis for the transformation of the economy.

[1]The exchange rate is fixed daily as a managed floating rate against a basket of currencies

The study is divided into three sections. The first section outlines the general structural changes in the economy and the main factors contributing to its recent success. The second section analyses the development of the export processing zone (EPZ) and the role of trade preferences in stimulating exports. Section three reviews the constraints now faced in the economy and policies for the future growth and diversification of the export sector.

II. STRUCTURAL CHANGE AND SOURCES OF COMPARATIVE ADVANTAGE

II.1 Population characteristics

The fundamental resource of Mauritius is its people. Mauritius was officially discovered as an uninhabited island by the Portuguese in 1511, briefly settled by the Dutch 1698-1710 but then, given its strategic importance in the trade routes to India, was settled by the French in 1715 and subsequently lost to the British in 1810. Independence was achieved in 1968. Sugar was the mainstay of the island and this was first worked by slaves from Africa and, after slavery was abolished, by indentured labourers from India. The result of this history is a rich mosaic of population and culture with just over two-thirds being of Indian (ie sub-continent of India/Pakistan) descent, just over one-quarter of African and mixed race, and 5% of Sino-Mauritian and Franco-Mauritian descent. English is the official language and taught in all the schools, but French, together with Creole, is the everyday language, while Chinese is spoken by a small minority. The island is a harmonious blend of these ethnic ingredients and, together with a politically stable democractic system of government, this provides the foundations for its economic development.

The growth of population has declined steadily from just under 3% pa in the period 1952/62 to just under 1% in 1983/87 and is projected to reach 0.6% in 1990 (excluding Rodrigues). This has produced a favourable age structure of population with 65% of the population of working age (56% in 1972) and a median age of 25 years. Just over 30% of the population are under 15 (1980) but only 4.9% of the population are over 65 years, so that the dependency ratio is 54.1%. The current labour force, estimated at over 440,000, reflects both past trends in population and the rapid increase in female participation rates to a level of 47% in 1987 (due largely to the growth of the EPZ). As a result, the labour force has expanded by 3% pa in 1972-83 and 5.1% pa in 1983-87.

Both primary and secondary education is free with the Government providing 80% of primary schools and 19% of secondary schools. Primary school enrolment rates were 89% (5-11 years) and 96% (6-11 years), and secondary school enrolment rates were 45% in 1987 (ie 60%-65% of children leaving primary school go on to secondary schools). Educational standards are maintained by means of a Certificate of Primary Education (20,859 pupils, success rate of 55% in 1987), a Secondary School Certificate (6,155 pupils, pass rate of 68% in 1987, while about one-third of those passing the secondary certificate go on to obtain the Higher School Certificate (2,157 pupils, pass rate of 56%). Participation in secondary education, particularly for girls, has substantially increased over the past 25 years, is higher than most middle income countries and comparable to upper middle income countries such as Malaysia and Mexico, and significantly higher than that for Brazil (see World Development Report 1988, table 30).

Thus, although Mauritius is not rich in physical resources, it can, given its small size of population, be said to be relatively rich in human resources in at least three respects. First, it has a young population, but unlike many, particularly African, developing countries, two-thirds of the poplation are of working age. Second, a substantial proportion, particularly of new entrants to the labour force, have a good general level of education and are fluent in French and have a good knowledge of English. The most important weakness in the educational system, which could inhibit future development, is in the provision and encouragement of technical and commercial training in both the public and private sectors. This has been recognised by the Government and policies are being put into effect which seek to remedy this deficiency (see Chapter 3). Third, the country's history and geographical location has developed a substantial class of entrepreneurs, knowledgeable about international trade and with close links with Europe (France and UK) and Asia (India, Pakistan, Singapore, Hong Kong, Taiwan Province and China).

II.2 Growth of GDP, Savings and Investment

The productive capacity of the economy has increased by just over 46% in the period 1982-89, enabling a 37% increase in real GNP over this seven-year period. When this rapid rate of economic development is added to the previous spurt in growth in the period 1973-79 of 8% pa, we obtain a tenfold increase in real per capita incomes over the last 20 years [World Bank 1989 (1)]. Key elements of this economic development are illustrated in Table 1.

Table 1: Output, Savings and Investment 1970-89

	1970	1976	1982	1983	1984	1985	1986	1987	1988	(1989)
GDP at constant (1982) prices Rs,ooo m	-	-	10.0	10.1	10.5	11.3	12.3	13.3	14.1	(14.7)
GDP - annual real growth %	-0.2	16.7	5.8	0.4	4.7	6.8	8.9	8.4	5.8	4.
GD savings - % GDP	14.0	24.0	15.4	17.1	18.7	21.6	28.5	27.4	25.8	2
GDFCF - % GDP	12.0	27.0	17.9	18.0	18.0	18.6	19.8	21.6	29.0	25.1

Source: Ministry of Economic Planning and Development (MEPD)

Underpinning the growth of the economy has been rates of savings and investment averaging 25% and 23% respectively, over the last five years. This is equal to the weighted average for all middle-income developing countries in 1987 and exceeds those for Sub-Saharan Africa (13% and 16%), Latin America and the Caribbean (20% and 18%), [World Bank 1989(2)]. The average annual growth of gross domestic investment over the period 1980-87 was 10.8%, exceeding that of all other countries (except China), listed by the World Bank Development Report 1989, and higher even than that of S. Korea (10% p.a.)[2]. Foreign direct investment flows vary from year to year but have averaged Rs 123.6m or 3% of total gross domestic investment in 1985-87.

Approximately one-third of investment over the period 1983-88 has been in "machinery and other equipment" with a further one-fifth in non-residential building. In terms of industrial use, approximately one-quarter of investment has been in manufacturing with a further 14% to 23% in "transport, storage and communication".

[2]Provisional estimates for 1988 record a real increase of 41% and 1989 a decrease of -13.2%, but these figures are distorted by the purchase of two large aircraft, costing over Rs 1,000m.

II.3 Changes in the structure of output and employment

The mainstay of the economy has traditionally been agriculture, based principally on sugar. Sugar production has, however, tended to decline in the 1980s due to a combination of a gradual long-term decline in the area under cultivation and only a small increase in yields (although these of course show significant annual variations depending on climatic conditions). Value added by other agricultural products such as livestock (Rs 233m in 1988), foodcrops (Rs 217m), and fishing (Rs 119m) has increased substantially, but still only accounted for 27% of total agricultural production in 1988 and so total agricultural production has stagnated in the 1980s.

In contrast, the manufacturing sector has grown very rapidly and this has greatly diminished the importance of sugar to the economy. Table 2 provides details of the changing share of key sectors over the period 1970-89. Whereas agriculture accounted for just under one-quarter of GDP in 1970 (and sugar 77% of agriculture production), this had fallen at constant prices to 10% (sugar 62% of this) by 1989, while value added by manufacturing exceeded that of agriculture by 1982. Similarly, sugar refining contributed about one-third of manufacturing output in 1970, and this had declined to less than 10% by 1989. Value added by manufacturing has increased from just under 16% of GDP in 1970-83 to nearly one-quarter by 1989, reflecting, for the most part, the very rapid growth of the EPZ since 1983. The latter has grown in real terms by 257% in 1983-89 and accounted for just under 60% of value added by manufacturing in 1989.

Table 2: Structure of Production 1970-89 (1982 prices)

% of GDP by:	1970	1982	1989 (estimate)	1989 (estimated current factor cost)
Agriculture etc	23.4	15.3	10.0	12.2
- sugar	18.0	11.3	6.2	8.5
Manufacturing	15.8	15.6	22.2	24.8
- sugar	5.0	3.1	1.8	2.3
- EPZ	-	4.5	12.0	14.5
Wholesale, retail trade, restaurants and hotels	10.2	12.9	16.0	17.8

Source: MEPD and Economic Indicator No. 96, October 1989

The increased share of wholesale and retail trades, restaurants and hotels can be explained by the general growth and prosperity of the economy, the increasing urbanisation of the population, and the growth of international tourism where arrivals have increased from 28,000 in 1970 to 124,000 in 1983 and 270,000 (estimated) in 1989.

Patterns of employment reflect and indeed emphasise the structural changes in the economy. Agriculture accounted for 47% of employment in 1970 and 18.5% in 1988, while manufacturing covered 6% of employment in 1970 and 39.2% in 1989. Table 3, similarly emphasises the very rapid growth of employment in the EPZ within the overall growth of employment in the manufacturing sector.

Table 3: Employment in Manufacturing

	1971	1976	1983	1988
Total	9,775	29,348	38,310	106,000
EPZ	644	17,163	24,952	89,000
non-EPZ	9,131	12,185	13,358	17,000

Source: MEDIA and MEI
Note: "Large" establishments (defined as having 10 or more employees)

Employment in "large" establishments in the EPZ were almost double those of corresponding establishments in agriculture in 1988 and exceeded total agricultural employment (large and small establishments) of 82,300.

II.4 International Trade

With the exception of 1986, Mauritius has recorded a deficit on the balance of trade over the period 1987-88. This is to be expected in a rapidly developing economy and in 1988, of imports of Rs 15,472m (excluding the aircraft at Rs 1,775m), capital goods accounted for 22%, intermediate goods 51%, and minerals, foods, etc. 7%.

Exports in 1988 were Rs 13,897m of which just under one-third was accounted for by sugar, compared to a 72% share in 1976 and 58% share in 1983. Mauritius has, since 1975, benefited from an annual import quota into the EC under the sugar protocol of the Lomé Convention of 487,200 tonnes and this quota absorbs just under 80% of sugar exports by Mauritius. In addition to guaranteed entry to this highly protected market, the sugar protocol defines an EC import price which is based on the internal (CAP) EC price, and this has in recent years been around three times the world price for sugar. Foreign exchange earnings from sugar exports to the EC have therefore been an important factor underpinning the development of the economy and the growth of the manufacturing sector.

The sharp decline in the relative importance of sugar in total exports has been due to the very rapid growth in exports of manufactured goods by the EPZ - from an 11% share in 1976, 28% in 1983 to 60% in 1988, and an estimated 63% share in 1989. This share of course exaggerates the net foreign exchange earnings of the EPZ relative to the sugar sector as the former has a much higher import content in production than the latter. EPZ imports in 1988 were equivalent to 72% of gross export earnings so that EPZ net exports were equal to 51% of gross export earnings of sugar. This, however, underestimates the underlying contribution of the EPZ in that 14% of EPZ imports were"machinery and transport equipment" reflecting substantial investment for future production and exports. An alternative measure is to use value added in the EPZ and on this basis EPZ exports in 1988 were equivalent to 64% of export earnings from sugar. Allowing for this and the fact that the real growth rate of the EPZ has averaged 15% pa over the last five years, while the prospect for increased earnings from sugar are poor, suggests that net export earnings from the EPZ may exceed those of sugar by the mid-1990s.

The other signifiant growth sector has been tourism, where gross tourism earnings have increased from Rs 184m in 1976 to Rs 630m in 1984 and Rs 2,374m in 1988 (estimated Rs 3,000m in 1989). Net foreign exchange earnings will be substantially less than the gross figure because the import content of tourism expenditure can be expected to be high, while most of the international hotels are foreign-owned, and will, therefore, in the long run, be subject to substantial repatriation of profits and dividends.

The overall balance of payments has moved from an overall deficit of over Rs 500m in 1982-83 to a surplus of Rs 258 in 1985 rising to Rs 2,788m in 1987 and Rs 1,265 in 1988, despite an increasing visible trade deficit of Rs 1,115 in 1987 and Rs 3,350m in 1988. These differential movements in the visible trade and the overall balance of payments reflect inflows of project and non-project financing on the capital account, loans in 1988 to cover payments for the two aircraft mentioned earlier, and earnings from tourism on the current account. The improvement in the balance of payments has been used to reduce overseas borrowing and improve the debit profile (eg through the pre-payment of high interest 50 million Euro-dollar loans in 1988). As a result of this debt management policy, the debit service ratio has been rapidly reduced from 27% in 1984 to 6% in 1988.

The surplus on the overall balance of payments is however expected to diminish[3]. First because the very rapid growth in recent years in manufactured exports (from a small base) is not expected to be sustained. Second, remittances abroad of profits and dividends will increase and are not expected to be offset by reduced interest payments (debt outstanding in 1988 was Rs 5.8billion - 48% to international development institutions, 33% to foreign governments and 19% to foreign private institutions). Third, the balance of trade has benefited from a 43.5% improvement in the terms of trade over the period 1984-88; due to rising export prices and fairly constant import prices, and it is unlikely that this will be sustained.

II.5 The Policy Environment

Industrial and commercial policy has developed over the past 26 years and covers a wide range of policy instruments, both specific to the industrial sector and through broader policies covering (as indicated in 2.1), particularly education and health.

Mauritius has, in common with many developing countries, pursued twin policies of stimulating both import substitution and exports diversification. Imports have been subject to high levels of protection. Greenaway and Milner (1986, 1987), using data for 1980, estimated the average tariff rate at 55% and an effective tariff rate of 88%. When surcharges, levies and stamp duty are added, the average tariff rate was 86% and the effective tariff rate was estimated to be 128%. Production for import substitution has been stimulated by the Development Certificate Scheme (started in 1963) and subsequently by the Development Incentive Act 1974 and Industrial Buildings Incentives Act 1986. These incentive schemes gave a mix of tax holidays on profits and dividends, investment allowances, preferential financial arrangements and subsidised government-built factory space as well as relief from import duties on capital and intermediate goods used in production. Exports have been promoted through the Investment Incentive Schemes[4] and particularly the Export Processing Zones Acts of 1970 and 1984, which although similar to the general provisions of the import substituting industries, have until recently been different (and in general more generous) in details concerning tax rates and tax relief.

These incentive schemes had, by the early 1980s, produced what were generally considered to be disappointing results. In a small economy such as Mauritius, import substitution cannot be expected to maintain a significant growth in employment and so hopes were pinned on the performance of the EPZ. After rapid growth in EPZ employment from 644 in 1971 to 17,163 in 1976, employment only slowly increased to 27,625 in 1981 and 24,952 in 1984. That is, under 8,000 jobs in 8 years, while unemployment rose to 20% in 1983. One obvious explanation for this situation was the second oil shock in 1979, which induced world recession and ended the 8% pa growth rate Mauritius had enjoyed since 1973. A further factor, however, appears to have been the results of the complex system of import protection and export subsidies, which, through the price system, produced an incentive structure contrary to policy objectives.

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[3]National Development Plan 1988-1990, Vol. 1

[4]For further information, see MEDIA, Fact Sheet No. 4

Import protection increases the price of importables, but this will not be the only effect within a general equilibrium framework and secondary effects on other sectors of the economy must also be taken into account. Thus, if non-tradeables (home-produced goods) are close substitutes to tradeables in production and consumption, then the rise in the price of importables will induce an excess supply of importables and an excess demand for non-tradeables. Prices in the two sectors will adjust until the pre-protection level of relative prices of importable and non-tradeables is more or less restored, at which point the net, or "true" tariff protection of importables is close to zero. At the same time, the rise in the price of home produced goods, in the face of an exogenously determined (world) price for exportables, will mean that the incidence of the import protection (in the sense of the location of the tax burden) will mostly fall on the export sector. We thus reach the paradoxical conclusion that the greater the shifting of the costs of protection to exportables, the lower the true protection of importables. Subsidies to the export sector may partly offset the cost of protection, but this will only further reduce the true level of protection of importables whilst still leaving an effective tax on exports.

Applying this analysis to Mauritius for the period 1976-82, Greenaway and Milner estimated that 59% of the costs of import protection were shifted in the form of an implicit export tax on to non-traditional exports (EPZ exports of clothing). It also appeared that this implicit export tax had increased from a level of 50% in the period 1969-76. The authors were unable to accurately estimate the average nominal subsidy on exports, given the range and types of incentives, but if this were assumed to be 40% this would produce a "true" tariff rate of 11% (compared to a nominal 86%) and a "true" export subsidy of -16% (ie a tax of 16%). If the nominal export subsidy were 20%, then the true tariff would have been 17% and the true subsidy -24%. In other words, the interaction of import protection and export subsidisation placed the EPZ at a price disadvantage in non-traditional export markets which was greater than the margin of tariff preference available under the trade co-operation provision of the Lomé Convention. It would also go a long way towards explaining why the EPZ did not grow more rapidly, despite apparently generous incentives.

Under a succession of IMF arrangements, backed by the World Bank, Mauritius introduced from 1982 onwards, a package of liberalisation measures. The Mauritian rupee was devalued and its base changed in 1983 from the SDR to a trade weighted basket of currencies. Coming so soon after the 30% devaluation of 1979, these measures alone further increased the profitability of exporting, with the real effective exchange rate depreciating by 21% over the period 1980-88[5]. Quantitative controls on imports have been eliminated and steady progress has been made since 1986 on tariff reform. At the same time, most subsidies and controls on prices were eliminated while wage controls were maintained so that the rate of increase in the consumer price index exceeded the growth in wage rates until late 1987. Supply-side measures were also applied to reducing the budget deficit, and this fell from 10% of GNP in 1980 to just over 2% of GNP in 1987. This change was brought about not by cutting welfare payments but by increasing revenues through the incentive effect of cutting corporation tax from 66% to 35% and income tax from a maximum of 70% to 35%. The 'tax holiday' element in corporation tax was criticised for encouraging short term investment and so in 1985 a new scheme was introduced whereby firms established under the investment incentive schemes were given the option of paying corporation tax at a flat rate of 15% over the whole life of the company, while dividends were made tax free for a period of ten years from production day. Since 1984, the explicit discrimination against exporting by non-EPZ companies has been reformed by reducing corporation tax by 2% for each 10% of output exported.

[5]World Bank (1989{1})

III. THE DEVELOPMENT OF THE EXPORT PROCESSING ZONE

III.1 Growth and Structure of the EPZ

One of the main objectives in establishing the EPZ was to provide productive employment for the rapidly growing population and in this respect the growth of the EPZ has exceeded all expectations.

Table 4: Growth of the EPZ 1971-88

Year	Number of Enterprises	Employment	Change in Employment over Previous Year	Av. size of Enterprise (2/1)	Gross exports (Rs million)
1971	9	644	-	72	3.9
1972	19	2,588	1,944	136	12.0
1973	32	5,721	3,133	179	45.0
1974	45	10,669	4,948	237	135.6
1975	66	11,407	738	173	196.4
1976	85	17,403	5,996	205	308.6
1977	89	17,474	71	196	433.4
1978	85	18,323	849	216	484.5
1979	94	20,742	2,419	221	620.1
1980	101	21,642	900	214	894.5
1981	107	23,601	1,959	220	1,087
1982	115	23,870	269	208	1,235.5
1983	146	25,526	1,656	175	1,306.8
1984	197	37,573	12,047	191	2,100.0
1985	277	53,440	15,867	193	3,283.0
1986	408	74,015	20,575	181	4,960.0
1987	531	87,905	13,890	166	6,567.0
1988	591	89,080	1,175	151	8,176.0

Sources: Wong Ng, 1985, pp.22-23. Ministry of Economic Planning and Development, 1985 to 1988

Table 4 indicates that the growth of employment was variable up to 1982/83 and then 'exploded' until the end of 1987. In 1988, the labour market began to 'tighten' and estimates for 1989 indicate no growth, and perhaps a small decrease in employment as the economy approaches its 'natural' rate of unemployment (ie full employment given the structural characteristics of the labour market).

The EPZ is not a 'zone' or export enclave physically separated from the rest of the economy, but a system of incentives which are granted on condition that the whole of the output (with certain minor exceptions) of the enterprise is exported. Indeed, one of the contributions of the EPZ has been its willingness and ability (given the infrastructure of the economy) to locate near to sources of labour and avoid excessive concentration in one urban centre, with all the social costs that this invariably brings in a period of rapid industrialisation. It has also enabled the EPZ to employ women who would be unwilling to travel into a large manufacturing centre for work.

Table 5 provides details of the geographical distribution of EPZ enterprises. There are three main centres of manufacturing broadly located for a distance of 30 km along the NW section of a dual carriageway which stretches from Pamplemousse (NE of Port Louis) to just short of the international airport at Plaisance (south of Mahébourg). These are Port Louis, Plaine Lauzun and Terre Rouge; Beau Bassin, Rose Hill and Quatre Bornes; Curepipe; Phoenix and Vacoas. Whilst covering a large proportion of employment in the EPZ, these three centres account for less than half the number of enterprises. Indeed, the establishment of industry in the rural areas has, since 1978, reversed the strong movement of the population to the towns. In 1972, 44% of the population were located in urban areas and by 1983 (the latest available statistics), this had declined to 41.7%.

The average size of enterprise is relatively small and has decreased substantially with the rapid expansion in recent years (see Table 4). The size distribution of enterprise, however, is strongly skewed, and as Table 6 indicates, whilst 55% of enterprises employ 50 or fewer people, half the labour force is employed in only 7.3% of the firms. The proliferation of small enterprises in recent years has given cause for concern.

Table 5 **Geographical distribution of EPZ Enterprises**
No of Enterprises operating by industrial group and location
31st December, 1987

LOCALITY	Spinning & Knitting	Other Textile & Garments	Flowers	Foods	Gloves	Jewellery & Related Articles	Leather Products	Spectacle Frames & Others	Model Boats, Toys, Games & other Sporting Goods	Watch Making & Related Articles	Other	Total
Curepipe	11	27	5	1	—	4	—	—	6	—	5	59
Plaine Lauzun	11	14	—	1	3	—	2	—	—	—	4	35
Coromandel & CRNW	8	16		1			1				8	34
Bonu Bassin	1	21	1								2	25
Flacq	1	10	2	—	—	—	—	—	—	—	—	13
Goodlands	1	5	—	—	—	1	—	—	5	2	2	16
Henrietta	—	—	1	—	—	—	—	—	—	—	—	1
Moka, St Pierre & Quartier Militaire	3	14	5	—	1	1	1	1	1	—	1	28
Paille	—	5	—	—	—	—	—	1	—	—	3	9
Phoenix	—	12	—	—	—	—	—	1	—	—	2	15
Port Louis	3	22	—	3	—	4	—	—	—	—	13	45
Quatre Bornes	1	25	1	—	1	—	—	—	—	—	4	32
Rivière des Anguilles	—	1	3	—	—	—	—	—	—	—	1	5
Rose Belle, New Grove & Mahébourg	4	6	—	—	—	—	—	—	—	—	—	10
Rose Hill	4	26	—	—	—	—	—	—	—	—	2	32
Terre Rouge	—	12	—	—	—	—	6	—	—	2	1	21
Tombeau Bay	—	6	—	—	—	—	—	—	—	—	—	6
Triolet	5	5	—	—	—	—	1	—	—	—	5	16
Vacoas	4	24	—	—	—	—	—	—	—	1	2	31
Rivière du Rempart	1	7	—	—	—	—	—	—	—	—	—	8
Surinam	—	2	—	—	—	—	—	—	1	—	—	3
Other	8	44	10	2	—	2	3	—	1	1	16	87
TOTAL	66	304	28	8	5	12	14	3	14	6	71	531

Source: MEDIA Fact Sheet No. 3, Table 6

Table 6: Distribution of EPZ enterprises by employment size - as at June 1989

Employment size	No. of enterprises			No. of persons employed		
	Number	%	Cum.%	Number	%	Cum.%
Under 10	73	12.7	12.7	420	0.5	0.5
10 - 50	240	41.8	54.5	5,196	6.9	7.4
51 - 100	79	13.7	68.2	5,566	6.2	13.6
101 - 300	104	18.1	86.3	18,182	20.4	34.0
301 - 500	37	6.4	92.7	14,272	16.0	50.0
501-1,000	28	4.9	97.6	19,963	22.4	72.4
1,000 and above	14	2.4	100.0	24,666	27.6	100.0
TOTAL	575	100.0	100.0	89,265	100.0	100.0

Source: Economic Indicators No. 93, August 1989

As figure 1 indicates, the period of most rapid expansion in employment, 1983-87, also showed a significant fall in the average size of enterprise and a sharp decline in the real average product of labour. The combination of declining productivity of labour with a tightening of the labour market pushing up labour costs (38% increase 1984-87) and rising domestic inflation (9.2% in 1988 and an estimated 13% in 1989) adding further to demands for higher wage rates, implies that competitiveness can only be maintained by successive depreciation of the rupee. This, however, can only restore competitiveness in the short term, as in a small open economy like Mauritius, devaluation will quickly feed through into further inflation as a result of rising import prices. The association of falling productivity with small sizes of enterprise, however, is not precise (see Fig. 1). The rise in the average product of labour since 1986 suggests that the marginal product of labour has in fact been increasing in recent years and that the cost squeeze may have removed some of the less competitive firms, but that these are not necessarily the smaller firms. The extent to which these changes in productivity have been associated with changes in the size of enterprise is, therefore controversial.

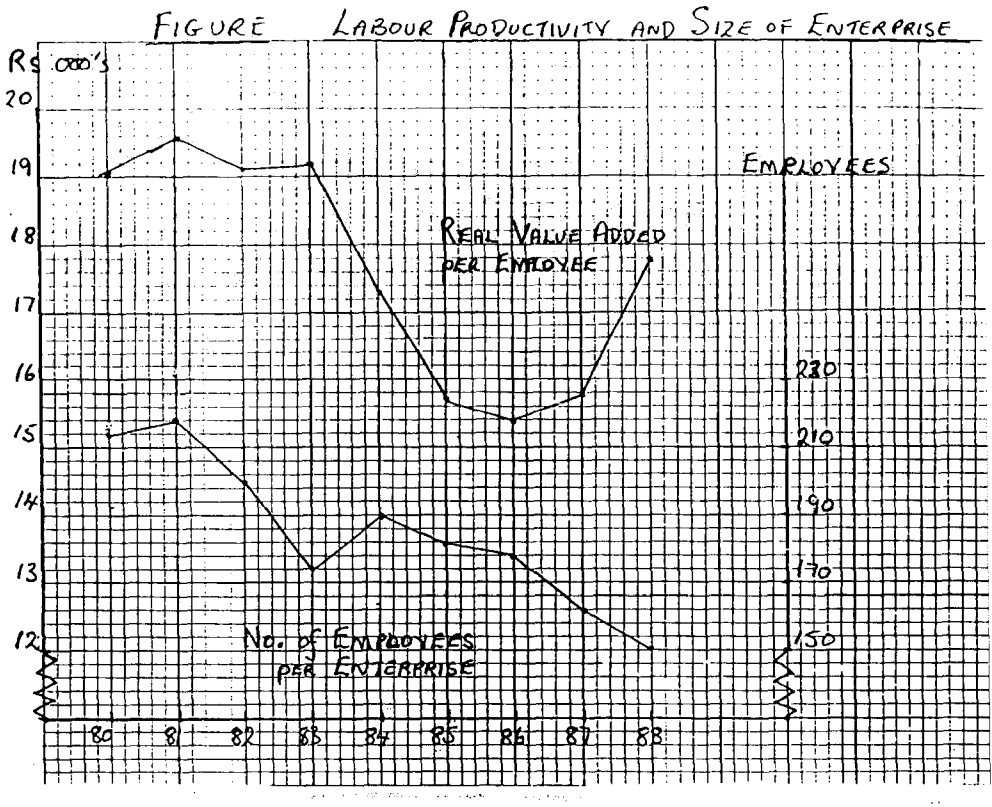

Table 7 details the main sources of the explosive increase in firms (threefold) and employment (factor of 2.5). Employment has been increasingly concentrated in the clothing industry, accounting for 87% of employment in 1988. Within this sector employment in textile garments has expanded at over five times the rate of that of pullovers and employed just over 50% of the EPZ labour force in 1988. Indeed, employment in pullovers declined by 3,000 during 1988, and by nearly 5,000 over the period June 1988-June 1989. This pattern of expansion in textile garments has been associated with the decrease in the average size of enterprise for the economy as a whole. For example, in 1988 there was a net contraction or closure of existing enterprises employing a total of 3,900 and of an average size of 130 people and the addition of new enterprises employing over 5,000 and with an average size of 53 employees. The World Bank study in discussing the clothing industry, singled out the CMT (cut, make and trim) firms as being poorly managed, using obsolete technology and being too small to retain skilled labour, and in this report small firms are regarded as primarily responsible for the decline in labour productivity. This is because they are seen as having inadequate resources for investment in plant and equipment, stocks of intermediate products to meet rapid changes in demand, training of personnel and in the maintenance of quality control of products. The development of the sector is therefore seen as involving a fundamental switch away from growth based on small firms to one based on the expansion of existing large firms who have the necessary resources for investment in physical and human capital and can diversify their output by product and market.

Table 7: EPZ Enterprises and Employment 1983-89

Product Group	Enterprises %		Employment %		Average Employees per Enterprise	
	1983	1988	1983	1988	1983	1988
Flowers	10.3	4.8	0.6	0.4	10	13
Textiles, yarn & fabric	5.5	4.7	5.4	4.3	153	141
Wearing apparels	43.8	70.2	80.1	87.4	319	189
of which						
(a) pullovers	(18.5)	(11.0)	(56.6)	(35.8)	(535)	494
(b) gloves	(23.3)	(0.9)	(3.7)	(0.7)	(315)	120
(c) other garments	(23.3)	(58.3)	(19.8)	(50.9)	(149)	133
Leather products & footwear	3.4	2.1	1.1	1.3	56	92
Wood & paper products	2.7	2.6	1.9	0.6	121	33
Optical goods	1.4	0.7	0.7	6.9	90	144
Watches & clocks	4.1	1.0	1.5	1.0	64	145
Jewellery & related articles	6.2	2.4	2.7	1.7	77	107
Fishing tackle & flies	2.7	0.5	1.2	0.2	77	56
Toys & carnival articles	4.1	1.2	2.1	0.9	89	111
Other	15.8	9.6	2.8	1.6	31	25
TOTAL	100.0%	100.0%	100.0%	100.0%	175	152
NUMBER	146	580[6]	25,526 (591)	88,331[6]	(89,080)	

Source: 1983 statistics from World Bank [1989]
1988 statistics from Economic Indicator 93, August 1989

This view is however challenged (Arif Currimjee 1989). The weakness of small firms is seen as deriving from their dependence on large integrated firms as sub-contractors because the industry lacks sufficient independent ancillary industries, such as spinning, weaving, dyeing and finishing operations, upon which small firms depend. In this view, the fundamental need is for flexibility. This is required both to meet increasingly rapid changes in the level and composition of demand from overseas buyers, and to enable the clothing industry to move up-market into quality, fashion clothes. According to this view, this can only come through fragmentation of the industry into inter-dependent small units, as has been the case in Italy, Hong Kong and Taiwan.

[6]World Bank figures excluded "Food" and to make accurate comparisons, this product group has also been excluded from the 1988 figures. "Food" had 11 enterprises employing 749 in 4th quarter of 1988.

Given the increasing constraints on the economy, it is essential that the productivity of labour is increased. The debate is whether this could be achieved by allowing rising costs to squeeze out the small enterprises and thereby release resources for the larger and (assumed) more 'efficient' enterprises, or whether it should be achieved by Government intervention to encourage investment in industries and services ancillary to the clothing industry so that the more efficient, smaller, enterprises can prosper.

III.2 Export Markets

Destinations

Table 8: EPZ Exports by real growth rate and destination 1980-99

	1980	1981	1982	1983	1984	1985	1986	1987	1988[7]
Exports (Rs m)	894	1087	1236	1307	2151	3283	4951	6567	8176
Real Growth Rate	+7.0	+10.0	-5.7	+2.0	+33.3	+33.6	+40.0	+22.0	+12.0
EC Market %	84	83	80	80	69	68	68	71	75
France	25	29	33	32	27	28	33	36	34
UK	25	16	16	17	16	13	10	11	13
Germany Fed.	14	15	13	12	12	13	13	14	15
Italy	5	6	6	6	5	6	4	4	5
Belgium	8	6	5	5	3	3	3	3	3
US Market %	12		13	14	24	25	27	25	21

Source: MEPD

The spectacular surge in EPZ exports from 1984 onwards is clearly shown in Table 8. Exports to all destinations increased in this year but by far the greatest increase was in exports to the US, which rose from Rs m 184 in 1983 to Rs m 514 in 1984. Exports to the US continued to grow rapidly until 1986, but by 1988 growth had virtually ceased. EC has always been the most important market, accounting for over 80% of exports in the 1970s. This only fell below 70% in 1984-86 because of the growth in exports to the US, but with quota restrictions now imposed on these exports, the share of EC is again increasing. Exports have been particularly concentrated on France, which reached a maximum share of 44% in 1975-77 and then fell sharply after VER's were introduced in 1977 (Stevens 1984). These were suspended in 1981 and the export share has gradually increased (on a rapidly increasing total volume) since then. The UK was initially almost as important a market as France, but its share declined during the 1980s until it is now just below that of W. Germany.

[7]Provisional

Products

Table 9 outlines the main products exported by the EPZ.

Table 9: EPZ exports by main commodities, 1982-88

	F.O.B. value: Rs million						
	1982	1983	1984	1985	1986	1987	1988[8]
Fish & fish preparations	47	66	99	114	97	100	173
Textile yarn & fabrics	89	66	78	86	101	138	180
Wearing apparel	877 (71)	921 (70.5)	1,585 (73.7)	2,539 (77.3)	4,012 (81.0)	5,407 (82.3)	6,446 (78.8)
Optical goods, n.e.s.	29	33	60	82	90	90	88
Watches & clocks	38	65	84	146	246	337	563
Pearls, precious & semi-precious stones	52	49	89	127	172	185	302
Jewellery & other articles of precious or semi-precious materials	27	31	48	58	82	65	69
Toys, games & sporting goods	30	34	50	44	57	78	85
Other	46	42	58	87	94	167	270
TOTAL	1,236	1,307	2,151	3,283	4,951	6,567	8,176

Source: MEPD

Clothing has always been the mainstay of the EPZ and has been responsible for most of the rapid increase in exports. However, exports of watches and clocks and flowers (contained in "other") have grown more rapidly, though of course from a much smaller base. There has also been diversification by product (at the 7 digit SITC level). In 1971, 21 products were exported by the EPZ, this had increased to 46 by 1976 and 70 in 1988.

[8]Provisional

(a) Clothing

Details of the main EPZ exports are given in Table 10, covering 79% of total EPZ exports. Initially, in 1974, woollen knitwear production stimulated by overseas investment, particularly from Hong Kong, was the most important EPZ export. Today, Mauritius is the third largest exporter of wool knitwear and the world's largest exporter of quality woollen knitwear bearing the International Wool Secretariat's "Woolmark" quality licence (as Mauritius advertising says "not bad for a small island without a single sheep!"). Most of the wool is imported (value of Rs 438 m) from Australia and New Zealand, although some also comes from China and South Korea. France imports 35% of woollen pullovers while W. Germany imports 43% of cotton pullovers and 24% of woollen pullovers. The relative importance of knitwear in EPZ exports has, however, decreased from almost 100% in 1974 to 60% in the late 1970s, 40% in 1984 and 24% in 1988. Conversely, clothing (excluding knitwear) has increased its share in total EPZ exports from 28% in 1983 to 39% in 1985 and 48% in 1988. Interestingly, in view of the rules of origin governing preferential imports into the EC (see 3.4.1), imports by Mauritius of woven cotton fabric (a proscribed starting material for obtaining EC preferences) from such 'non-originating' sources as Hong Kong, Taiwan, Japan and South Korea were at Rs 860m in 1988, almost twice the level of imports $467m of cotton yarn (an acceptable starting material for obtaining EC preferences) from India, Pakistan, Singapore and China. An important factor in the evolution of export shares has been the rapid increase in exports to the US in the period 1984-87, (although France has also been an important market) and this fact, together with the rapid increase in imports of cotton fabric (an acceptable starting material for the US), suggests that EC rules of origin may have retarded the growth of clothing exports to the EC.

Table 10: Main EPZ Exports 1988

SITC (Rev 3)	Product	Value Rs m	Principal Destinations (% Share)
073.13	Tuna, skipjack, bonito	169	UK (90%)
277.19	Other ind. diamonds, not mounted or set	36	Belgium (69%)
667.29	Other non-ind. diamonds, not mounted or set	255	Belgium (68%), Israel (16%)
612.90	Other articles, eg leather	48	France (92%)
658.42.10	Other bed linen, printed or cotton	45	W. Germany (31%), UK (22%), Netherlands (18%)
841.40.20	Men's or boys' trousers not knitted or crocheted	184	USA (58%), France (18%)
841.51	Men's or boys' shirts not knitted or crocheted	626	USA (42%), France (35%)
841.59.10	Men's or boys' shirts of wool or fine animal hair not knitted or crocheted	97	UK (88%)
841.59.90	Men's or boys' shirts of other textile materials not knitted or crocheted	113	France (51%)

Table 10 Contd.

SITC (Rev 3)	Product	Value Rs m	Principal Destinations (% Share)
842.60.20	Women's or girls' trousers, shorts, not knitted or crocheted	164	USA (78%)
842.70.30	Women's or girls' blouses etc of cotton, not knitted or crocheted	135	USA (49%), UK (37%)
843.21.10	Men's or boys suits of wool, knitted or crocheted	105	W. Germany (95%)
843.24.20	Men's or boys' trousers etc of cotton, knitted or crocheted	191	France (36%), USA (35%)
843.71	Men's or boys' shirts of cotton, knitted or crocheted	263	France (43%), USA (29%)
844.24.20	Dresses of cotton, knitted or crocheted	44	USA (77%)
844.25.20	Skirts of cotton, knitted or crocheted	56	USA (59%), Netherlands (23%)
844.26.20	Women's or girls' trousers, shorts of cotton, knitted or crocheted	143	USA (56%), France (22%)
844.70.10	Women's or girls' blouses, shirts of cotton, crocheted	45	USA (67%)
844.82.10	Women's or girls' briefs of cotton, knitted or crocheted	92	USA (97%)
845.30.10	Pullovers etc. of wool, knitted or crocheted	1,304	France (35%), W. Germany (24%), UK (20%)
845.30.20	Pullovers etc. of cotton, knitted or crocheted	431	W. Germany (43%), USA (19%) France (12%)
845.30.30	Pullovers etc. of man-made fibre, knitted or crocheted	76	France (55%), W. Germany (36%)
845.30.90	Pullovers etc. of other materials, knitted or crocheted	174	France (41%), W. Germany (34%)
845.40.10	Cotton T shirts etc, knitted or crocheted	779	France (36%), W. Germany (26%), UK (10%), Italy (9%)
846.92.90	Gloves of other textile material, knitted or crocheted	55	France (69%)
846.93	Scarves etc., knitted or crocheted	277	France (99%)
846.94	Ties etc., knitted or crocheted	66	France (100%)

Table 10 Contd.

SITC (Rev 3)	Product	Value Rs m	Principal Destinations (% Share)
884.23.10	Sunglasses	75	USA (63%), France (17%)
885.31.20	Watches - digital display	51	W. Germany (88%)
885.93.92	Leather watch straps	45	France (91%)
885.98.11	Complete watch movements, unassembled or partly assembled	265	France (89%)
885.98.12	Incomplete watch movements, assembled	77	France (73%), Switzerland (26%)

Source: Quarterly External Trade Statistics, July 1989

There are, however, indications that exports of clothing are facing increasing difficulties.

First, with the increase in female participation rates to levels found in the NICs, and unemployment falling to near full employment level, employers are finding it increasingly difficult to obtain staff to increase production. Under EPZ regulations, workers have to work 10 hours overtime per week if required for which they are paid 1.5 times the basic rates, 11/15 hours attracts double time rates and over this level, triple time. However, significant levels of overtime are also associated with absenteeism and so total hours worked may not increase significantly.

Second, competition between employers for staff, coupled with rapidly increasing inflation can be expected to increase wage rates. These are about Rs 50 per day or around one-sixth those of Hong Kong (though labour productivity is lower) and in large factories workers can expect to earn Rs 1,500-Rs 2,000 per month, plus further benefits such as paid holidays, sick pay, subsidised meals and free transport to work (see section 3.6). These benefits, together with insurance contributions, raise labour costs by about a further 50%. The main competition faced by Mauritius is not, however, from the SE Asia NICs but from the newly emerging industrialised countries such as China and Thailand, and the Mediterranean countries who benefit from preferential access to the EC market.

Third, the US market for clothing is now subject to quotas, and for all clothing except for man-made fibre shirts, blouses and trousers these quotas are binding (ie Mauritius exports to the full limit of the quota). Expansion of exports to the US is therefore determined by the expansion of the quota - around 6% in 1990 for most items (slightly more for men's and boys' cotton and man-made fibre shirts, not knitted, and 1% for cotton and man-made fibre and silk blended shirts).

Fourth, Mauritius is seen as losing out to more favourably placed manufacturers in the Caribbean who are able to benefit from CBI (Caribbean Basin Initiative) preferential exports to the US.

Fifth, markets appear to have become more volatile, particularly in the US but increasingly also in the EC. Consumers are now becoming more design and fashion conscious and this (together with bad seasons recently) has made buyers for retailers in the US and Europe unwilling to place orders until absolutely necessary. For example, in knitwear, until two or three years ago, European buyers would place large orders in October/November for delivery

in June to August and this order would stand a great chance of being repeated the following year. Product life cycles have now substantially reduced and buyers are much more likely to book machine time in January/February and only subsequently place the precise order for quantities and design, while still requiring delivery in June/August. In general, "lead times are shrinking dramatically (production) runs are becoming shorter, greater levels of service are required both in terms of design and merchandising. Even the more staid conservative and predictable customer is becoming more design conscious, more demanding, less predictable". (Currumjee 1989).

One result of these pressures has been to increase the vertical integration of the clothing industry. For example, imports of cotton yarn usually take around 8 weeks from the time of negotiating the order. Since the cost of holding stocks of cotton is considerably less than holding stocks of yarn, firms have integrated backwards into spinning, not, it should be noted, to obtain scale economies, but to achieve the necessary flexibility to service a more volatile market at minimum cost. Pressure on costs has also forced the larger firms to move up market by investing heavily in computerised equipment and developing their own designs and collection. The general strategy of such firms is to ensure that their products cannot be easily compared to the competition from the Far East, particularly in terms of details of design and finish.

(b) Other non-traditional exports

Exports of **watches**, mainly to France and West Germany, reached Rs 393 m in 1988 (see Table 10). Only one company, Richter Ltd. (established 1978, currently 180 employees), exports complete watches (apart from straps). Three other companies, Best Electronics (established 1987, currently 111 employees), Quartz Precision (established 1984, currently 215 employees) and Sadhov(established 1985, currently 165 employees) assemble watch movements for final assembly in France or Germany, while ISM Ltd (established 1979, currently 130 employees) specialises in assembling watch dials. The ratio of value added to exports in watches has significantly increased from 17.3% in 1985 to 24.2% in 1987 (latest available year) and this can be compared to 34.7% for clothing. In terms of value added to gross output, the ratios are 30.6% for watches compared to 33.2% for clothing. The assembly of watches is hand done throughout the world and since productivity levels are only a little below those of Europe and the end product can be imported back into the EC duty-free because of the cumulative provisions of the rules of origin under the Lomé Convention, the attractions of assembly in Mauritius are significant. The companies in Mauritius are wholly owned affiliates of EC companies and components are imported from specialist manufacturers in France (58%), Switzerland (28%) or West Germany (11%), with the marketing of the finished product done by the parent company, either for brand names or in their own name. As with other sectors of the economy, expansion is being limited because companies are finding it increasingly difficult to recruit additional employees. This is a particular problem in watch assembly because earnings of around Rs 1,200 per month compare unfavourably with Rs 1,500 to Rs 2,000 per month in the clothing industry. The difference in earnings is explained by the fact that overtime working is currently standard practice in the clothing industry, whereas the exacting nature of watch assembly makes overtime working unproductive as mistakes rapidly increase. Expansion will therefore require substantial increases in wage rates, but despite this firms appear to be optimistic and envisage an expanding market, especially for quality and fashion watches retailing for around Ff 700-800 in France. An associated industry is the export of leather watch straps by Cie Industrielle de Bracelet of Besançon. This was established as a joint venture with a Mauritius firm in 1975 and currently employing 400 people, with exports in 1988 valued at Rs 45.4m.

The jewellery industry employs 1,504 in five main firms most of whom are engaged in the **cutting and polishing of diamonds** for re-export back to Belgium (69%) and Israel (16%).

Leather products employs a further 1,105 people in 12 enterprises, none of which are large firms (the largest employs 110 people) but some of which have attracted French joint venture capital exporting (Rs 48.3) quality leather goods such as handbags, purses, wallets and belts to France (92%), while one company exports quality leather jackets, mostly to Germany. Exports have grown very rapidly and now account for just under half of the EC imports from developing countries. There have not, so far been serious difficulties with rules of origin as quality leather is imported from France and Italy. However, one factor possibly inhibiting future expansion is the inability to import leather from Australia and New Zealand and also conform to the rules of origin. There also seem to be doubts as to whether this rapid growth of quality exports can be sustained, as firms are finding it very difficult to obtain skilled workers, such as cutters. Indeed exports of leather handbags to the EC have fallen sharply since 1986. Leather goods, particularly shoes, have been targeted as a potential growth sector for the EPZ and the Government has invited (supported by EDF funding) a small group of Italian firms to investigate possibilities for joint ventures in Mauritius.

Canned tuna fish exports to EC, almost wholly to the UK, have persistently encountered problems with the rules of origin as the fish are caught by Japanese and South Korean ships. A succession of limited derogations have been obtained but exports have stagnated since 1983. Not all of the problems of exporting can be attributed to rules of origin and better management of the economic zone is being sought in co-operation with the Seychelles.

Exports of **Cut flowers** have rapidly increased in recent years and reached a value of Rs 35.1m in 1988. These are exclusively Anthuriums and Andreanums and exporters claimed that their success was due to finding a market niche and that Mauritius and Hawaii (the largest exporter) were the only important suppliers in the world of these flowers. The exemption from the 24% Community Tariff was regarded as unimportant as there were so few competitors. Exporters had not encountered any EC barriers to entry but rather emphasised differences in tastes as the major problems facing future growth and market diversification. For example, attempts had been made to develop the UK market but these had been unsuccessful. There are 30 growers, most of whom are small enterprises employing 3 to 13 people, while three of the big sugar estates have set aside a small proportion of their land to this high value export, but even these only employ 38 to 75 people. Exporting is organised either through the larger firms exporting their own flowers plus flowers purchased from the small scale growers, or through a few small scale exporters of fruit and horticultural products.

There is a very small amount of export of **other foodstuffs,** such as green beans and pineapples, but this is not a growth sector for a number of reasons. First, the decision to begin to diversify agricultural production away from a dependence on sugar and into other products in the early 1980s, was aimed solely at import substitution, particularly in potatoes (though inter-cropping with sugar) but also in maize and tomatoes. The objective was to achieve security of food supplies through increased self-sufficiency rather than maximising the rate of return on resources used in production. Second, the increasing shortage of labour and rising costs of production have, in recent years, decreased the area under cultivation of foodcrops. Acreage under cultivation increased from 5,308 hectares in 1984 to 6,296 in 1986 but fell back to just over 5,000 hectares in 1987 and 1988. Adverse climatic conditions such as excessive rainfall in 1987 and drought in 1988,in addition to damage from cyclones, have caused a far greater decrease in production . The frequency of cyclones has also inhibited diversification into crops such as papayas and mangoes. **Technical assistance** financed by the EDF under the Lomé Convention had been provided to develop indigenous production of seeds for vegetable production, cold storage of potatoes, and for a laboratory for the tissue culture of anthuriums to develop new varieties for export.

III.3 The Role of Trade Preferences in Stimulating Exports and Foreign Direct Investment

Exports to the EC have, under the Yaoundé Convention signed in 1972 and the Lomé Conventions of 1975, 1980, 1985 and 1990 (lasting 10 years) been "free of customs duties and charges having equivalent effect" (Article 130), provided they fulfil the criteria of the rules of origin. Also, products originating in the ACP States are exempt from any quantitative restrictions or measures having equivalent effect (Article 131). The major exception to this rule are products covered by the provision of the CAP but the major benefit to Mauritius is exemption from the quantitative restrictions imposed by the EC under the Multifibre Arrangement. The effect of these arrangements is to give Mauritius a substantial competitive advantage over countries in South and SE Asia and Latin America which are subject to the MFA and receive tariff preferences only through the GJP where "sensitive' products are subject to tariff quotas which, in the case of the NICs are often binding. The Mediterranean countries such as Morocco, Tunisia, Malta, Cyprus, Israel and Turkey obtain trade preferences similar to that of Mauritius, although exports of textile and clothing, particularly by Turkey, have been subject to VERs. The developed, EFTA, countries also receive duty-free treatment for most exports of manufactured goods to the EC. Mauritius also qualifies for tariff preferences under the Generalised System of Preferences (GSP) schemes of the other developed countries. These exports are largely to the USA, although there are a small amount of GSP exports to Switzerland (for example, incomplete watch movements, leather goods), Canada (shirts) and Sweden (bed linen).

Trade preferences can certainly never be a sufficient condition for developing the export sector of a developing country. Furthermore, in many developing countries with established firms supplying the domestic market as well as exporting, it is also often difficult to disentangle the competitiveness of firms and the effects of home country trade policies from the contribution of preference. In a country such as Mauritius, however, with no natural resource based industries and a very small size of domestic market, preferences may well fulfil their objective of providing a necessary subsidy to infant industries which have to become immediately competitive against established producers supplying world markets. Interviews with manufacturers produced the unanimous response that "without preferential access to the EC there would have been no EPZ" and that "duty free entry to the EC gave a crucial price advantage over competitors in Hong Kong, Taiwan and South Korea". The World Bank Study [1989] concluded that "there is little doubt that the Lomé Convention has been one of the most important catalysts to the growth of manufactured exports in Mauritius".

Table 11 summarises the main elements of the margin of preference into the EC market. For most EPZ exports to the EC, the margin of tariff preference is between 8%-14%. This is not insignificant but equally does not appear to give a large price advantage over competitors (most of the NICs will have to pay the full duty as GSP quotas will probably be operating on marginal exports). However, if we assume that competitors pay the same price for intermediate products as Mauritius and that the value added in the clothing sector in Mauritius is one-third of the real value of exports and clothing then, other things being equal, costs of of production in Mauritus can be 24% to 42% higher than non-preferred exporters to the EC and they can still compete on equal terms. At least as important, however, is the guarantee of market access to the EC which the Convention provides, because exports cannot be subject to the stringent quotas of the MFA. Mauritian companies do not in general appear to be aware of the importance of this element of preferential access and insist that the margin of tariff preference is all that matters, although given the VERs which were imposed by France and the UK in 1977 and 1978, on pullovers, shirts, blouses etc., they are aware of the sensitivity of these products.

Table 11: Margin of Preferences on Exports to EC

Product		Oct%	EFTA and Med%	GSP	MFA Quotas
Fresh cut flowers	1/6-31/10	24	Turkey 4.8 Malta 9.6	N	-
	1.11-31.5	17	Turkey 3.4 Malta 6.8	N	-
Canned tuna		24	Algeria, Morocco Tunisia = 9.6 Turkey = 4.8	N	-
Leather containers, handbags, cases etc		5.1	0	0(TQ,TC)	-
Protective leather gloves		10	0	0(TQ, TC)	-
Leather clothing accessories		7	0	0(TQ, TC)	-
Manmade yarn		9	0	0(TQ, TC)	-
Gloves, knitted or crocheted		8.9	0	0(TQ, TC)	Yes
Gloves, not knitted or crocheted		7.6	0	0(TC)	
Under garments, knitted or crocheted		13	0	0(TQ,TC)	Yes
Outer garments, knitted or crocheted		8 to 14	0	0(TQ,TC)	Yes
Men and Boys' outer garments		8 to 14	0	0(TQ,TC)	Yes
Women and Girls' outer garments		8 to 14	0	0(TQ,TC)	Yes
Men and Boys' undergarments		13	0	0(TQ,TC)	Yes
Bed, table, kitchen etc. linen		13	0	0	Mixed

Notes:

CCT = Common Community Tariff

EFTA, Med = Where a country is listed this means that preference only applies to these countries, otherwise preferences apply to all EFTA and Mediterranean countries.

TQ = Tariff quota applies to very sensitive products and to the most competitive developing countries

TC = Tariff ceiling applying to all GSP beneficiaries and are usually higher than TQs and are not divided into member states shares.

One indicator of the gross trade creation effect of preferences is the fact that in 1987 Mauritius accounted for 51% of EC imports of men's pullovers (6005.29 Nimexil classification) from developing countries (and just under four times the level of imports from Hong Kong) compared to only 8.1% of intro-EC trade. This suggests that the products are highly sensitive (they are MFA protected) and, but for the Lomé Convention, Mauritius would face the same restrictions as other developing countries.

Another indicator of trade preferences being effective is through their foreign investment creating and investment diverting effects. **Foreign investors** in Mauritius, particularly from developing countries and territories such as Hong Kong and Taiwan who are subject to the MFA, emphasise the importance of exemption for tariffs and quotas as important determinants

of their reason to invest in Mauritius. Another important factor has been the political stability of the country which, it is claimed, more than compensates for higher labour costs than countries such as Sri Lanka, Philippines and China. A further factor emphasised by Hein (1988) is that Hong Kong investors have been increasingly investing overseas because of the political uncertainties concerning unification with China in 1997. Foreign direct investment averaged $1.3m in 1980-83, $6.9m in 1984-86 and sharply increased to $17.5m in 1987 and $23.8m in 1988. A significant proportion of the increase presumably reflects the growth of tourism and represents investment in the hotel sector. However, Table 12 shows that investment in the EPZ also sharply increased (by 15%) in 1987 and accounted for over 80% of total fdi.

Table 12: Sources of Foreign Investments in EPZ (Rs)

Sources	1985	1986	1987
Australia	599,800	-	6,505,275
France	9,935,000	4,358,935	7,5572,200
Germany	520,000	3,464,000	500,000
Hong Kong	90,902,120	23,938,665	10,295,300
India	1,605,000	100,000	1,015,000
Italy	867,000	697,800	-
Singapore	2,004,000	-	400,000
South Africa	530,000	7,580,000	2,420,000
Taiwan	249,900	1,400,000	12,570,700
United Kingdom	2,279,900	3,140,805	6,465,900
USA	3,795,500	550,000	15,174,900
Other	830,000	28,174,336	126,283,965
TOTAL	114,107,320	73,404,541	183,203,340

Source: MEDIA Fact Sheet No. 3

Hong Kong has until recently been the major investor, providing two-thirds of fdi, both in 1984 (Lamusse, 1985) and 80% of fdi in 1985. This, however, sharply declined in 1986 and 1987 almost certainly reflecting the increase in the number of quotas imposed by the US from 10 categories in 1984/85 to 32 categories in 1988/89 (see 3.4.2). There are no published data on the structure of ownership of enterprise in Mauritius but surveys by Forget (1983) and Lamusse (1985) suggested that about half of the equity capital in the EPZ is locally owned, with the smallest proportion being in "jewellery and diamonds" (3%) and highest (excluding food and agriculture) in wool and knitting (60%).

Ownership structures are significant because research on the multinational enterprise suggests two important determinants of the long term contribution of fdi to the economic development of the host country. First, it is not so much the initial transfer of capital and access to markets that is important (significant though this is in the initial stages of development, especially perhaps in the context of Mauritius in its "demonstration effect') as the progressive degree of integration of the enterprise into the economy. Second, that the extent of integration into the host country's economy is greater, the larger the degree of local ownership and control of decision-making in the enterprise. If we take employment as a proxy for output and regard joint ventures with

80%-99% foreign ownership as "foreign enterprises" for the purposes of decision-making, then, on the basis of the data compiled by Lamusse (reported in Hein 1988), 38% of production is controlled by 'foreign' enterprises and 62% controlled by "Mauritian" enterprises (more than half of which has Mauritian equity participation of over 66%). As we have shown, employment in the EPZ has increased by 137% since this survey was carried out, but the overall consensus appears to be that ownership structures have remained stable because increased domestic investment has been matched by increased foreign investment, through the investment of retained profits and transfers of capital from abroad. This proportion of local participation appears to be significantly higher than other EPZ's such as Malaysia and South Korea, and the proportion of joint ventures about the same as most other EPZs (ILO/UNCTC, 1988) suggesting that, if this structure can be maintained, then the EPZ in Maritius can be expected to become increasingly more integrated with the economy, benefit from transfers of technology, and be much more stable (in the sense of having less 'footloose' enterprise) than is commonly associated with EPZs in developing countries.

III.4 Barriers to Preferential Exports

Preferential exports by the EPZ have met two sets of restrictions; rules of origin criteria on exports to the EC and quota limits on exports to the USA.

(a) EC rules of origin

The purpose of rules of origin is to ensure that non-beneficiaries of preferential trade agreements do not direct their exports through beneficiary countries and thereby evade the tariff and quotas (particularly under the MFA) of the EC trade regime. The basic criteria for products using non-originating intermediate products in production to quality for preferential entry into the EC, is that there should have been a change of tariff heading as a result of the process of production in the beneficiary country (for example, in the case of Mauritius this would apply to exports to the EC of leather handbags, cases and coats). The tariff schedules have not, however, been designed for the purpose of avoiding trade deflection and so all trade preferences donors supplement the change of tariff heading criterion with additional criteria. In the case of US preference, this is a straightforward value added criterion of 35% and Mauritius has experienced no difficulty in meeting this. In the case of the EC, however, a much more complex system of process and value added criteria are used. It has been shown (McQueen 1982) that these rules go beyond that which could be reasonably expected to simply prevent trade deflection, and in fact they act to protect 'sensitive' industries in the EC from competition from preference receiving countries. This has not been a problem for Mauritian exports of woollen garments but it has been a problem for exports of cotton shirts, blouses etc. The rules of origin specify that to qualify for preferences, such articles must either start from imported yarn or from cloth imported from either the EC or other ACP countries. Until recently, Mauritius had only one cotton spinning/weaving firm (Oceana, established 1973) and supplies were inadequate to meet demand. Mauritius has also found it impossible to obtain supplies of cloth from other ACP countries (although attempts have been made in the past to import from Malawi and Madagascar), while imports from the EC were so expensive that it was cheaper to purchase the cloth from Asia and pay the full duty on exports to the EC. This problem has now been overcome with the establishment of weaving and dyeing factories in 1986 (Colourtext, First Weavers), 1988 (Socota), a denim factory in 1989 (Union Textiles), while a large cotton textile plant (Woventex) is currently being constructed as a joint French-Mauritian venture at Triolet. While rules of origin no longer appear to be a problem for existing exporters, they almost certainly limit the ability of Mauritius to diversify into new exports (see chapter 4).

(b) US import quotas

Duty and quota-free entry into the US market was (along with low labour costs) an important reason for fdi in Mauritius, particularly from Hong Kong. An example of this investment is the Esquel Group of Companies, a wholly owned Hong Kong group with factories in Hong Kong, Singapore, Malaysia, Philippines, China (mainland), Taiwan, Sri Lanka and Jamaica, as well as Mauritius. There are four factories in Mauritius employing a total of 5,400 people in 1989 making shirts, (Esquel is reputed to be the second largest shirt manufacturer in the world (Hein 1988)), blouses, trousers, jeans, skirts, shorts, jogging suits and jackets. The fabrics are imported from Hong Kong, China, Malaysia and Taiwan and the Mauritius operation is essentially one of CMT (cutting, sewing and trimming). Textiles Industries Ltd was the first factory to be set up in 1972 with 300 workers, followed by Vacoas Garments Manufacturing Ltd in 1980, Leisure Garments in 1984 and Casual Garments in 1989,. Most production is shipped to the US via Felixstowe and takes 45 to 50 days, but changing patterns of demand have required an increasing use of air freight. All of the marketing is done by the parent company in Hong Kong and production, which is allocated to Mauritius by the parent company, is now limited by US quotas triggered because imports from Mauritius exceed 1% of total US imports in the appropriate tariff category. Despite this constraint, there are no plans to expand to the EC. One reason given for this is that personal contacts are all with the US market and the company has none with the EC. Accordingly to Hein (1988), however, the Esquel group is closely linked to the Afasia group and has a similar board of directors. Afasia employ a total of 6,000 in seven factories and concentrate on woollen and cotton knitwear exports to the EC. The lack of market diversification by Esquel may therefore be explained by the global production strategies of the present board of management.

The cessation of growth of exports to the US in the past couple of years can partly be explained by the fall in the market for man-made fibre clothing, but the fundamental constraint has been quotas which have increased from 10 categories in 1984/85 to 29 in 1987/88 and 32 in 1988/89 (see Table 13). These quotas might be increased if Mauritius signed a bilateral agreement with the US under the MFA but the Government is unsure as to how this would place them with the EC, who might then insist on a similar restrictive arrangement. Since the EC is the major market, it is thought wise simply to leave matters as they are.

Given that the quotas apply to most of Mauritius exports to the US, it is essential that they are administered in a way which leads to maximum utilisation. Mauritius uses a system in which 90% of the quota is allocated to established exporters on the basis of past performance. Thus if an exporter utilised only 49% or less of their previous year's quota, then they lose their share altogether. If 50% to 89% is utilised, then they are allocated their previous year's performance and if the utilisation rate was 90% plus, then the whole of last year's quota is renewed plus 6%. The system is monitored by requiring firms to submit monthly returns based on bills of export (ie showing actual exports) and exporters must declare by halfway through the 12 month period whether they are unable to meet their quota. New exporters are allocated the remaining 10%, plus any re-allocated quotas from previous exporters.

This system has been criticised (especially when the utilisation rate fell to 65% in 1987/88) because it is thought to create an insufficient incentive for exporters to surrender unused quotas (although lack of co-operation may affect their allocation in the following year) and because the unused quota is sometimes allocated too late for efficient exporters to use. Also, the 10% reserved for newcomers is regarded as too small an incentive to attract new exporters and this again helps to lower the utilisation rate. An alternative system, for example used in Hong Kong, is to auction the quotas. In this way the Government collects the economic rent from the quotas, while the price paid should, in theory, encourage exporters to fully utilise the quota. Mauritius, however, has rejected this system because it is regarded as unfair to small scale enterprises who would lack the financial resources to bid for quotas. It is also a small economy with only a limited number of exporters to the US so that any problems in exporting can be quickly identified and a meeting arranged with the Minister responsible for external trade relations.

Table 13: Products subject to US quota system

Category	Product Description	Quota (Sept.88 - Oct.89 (dzs))
331	Cotton gloves	337,080
335/835	Cotton, other vegetable fibre and silk blend coats for women, girls and infants	50,562
336	Cotton dresses	44,503 (quota period Jan-Sept.89)
337/637	Cotton and man-made fibre playsuits	127,000
338/339	Cotton knit shirts and blouses (inc T-shirts and sweat shirts) M,B,W,G and I	238,203
340/640	Cotton, man-made fibre shirts, not knit Men's and Boys'	381,709 (including 235,977 dzs of yarn-dyed fabrics)
341/641	Cotton and man-made fibre blouses, not knit	268,540
342/642/842	Cotton, man-made fibre, other vegetable fibre and silk blended skirts	174,900
345/438/445/ 446,645/646	Cotton, wool and man-made fibre sweaters (M,B,W,G and I)	1119,669
347,348	Cotton trousers and shorts	477,530
352/652	Cotton and man-made fibre underwear	747,945 (including limit of 635,753 dzs for cat. 3352 quota period Jan-Sept.89)
442	Wool skirts	10,795
604-A	Acrylic spun yarn	587,579 (lbs)
638/639	Man-made fibre knit shirts and blouses (inc. T-shirts), M,B,W,G and I	273,934
647/648/847	Man-made fibre, other vegetable fibre and silk blend trousers	393,260

The sharp drop in exports of man-made clothing to the US does illustrate the vulnerability of Mauritius in this market and indeed, but for the intervention of the Development Bank of Mauritius, the factory would have had to close. It appears that the problem was partly created by a drop in demand in the US for this type of clothing, but a more immediate factor was a switch in sourcing by US importers to more competitive suppliers in the Caribbean who benefit from preferential access into the CBI programme. US customs authorities, however, appear to be flexible in their administration of quotas and have allowed Mauritius to switch the

underutilised quotas on man-made fibre clothing to over-utilised quotas on cotton clothing, for example, cotton trousers, shorts and blouses.

The overall impression is that preferential exports to the US covered by the GSP created a once and for all increase in exports which has now been exhausted. Unless Mauritus can diversify into other clothing exports or non-sensitive products, there seems little prospect of exports to the US increasing. Other potential export markets covered by the GSP, for example, Australia, are being explored by the Government but the immediate prospect is for Mauritius to become even more dependent on the EC market.

III.5 Financial and Technical Assistance for Exports

The Lomé Convention is a comprehensive agreement covering not just trade preferences, but also provisions for aid and technical assistance. The European Development Fund operates in Mauritius via the Ministry of Finance and the Ministry of Economic Planning and Development, and is fundamentally concerned with social and non-commercial activities which inevitably have little direct effect on the EPZ. However, the indirect effects of EDF aid are significant. For example, the recent financing of extensions and improvements to the electricity system and assistance with the modernisation of the telecommunications system - both of which had become greatly overloaded because of the very rapid growth of the EPZ.

The EC can also assist through financing participation in export promotion fairs in the EC and stimulating joint ventures with EC firms via the Centre for Industrial Development. These activities, however, would seem to have been irrelevant to the development of the EPZ. For example, the European Commission would appear to decide, without consultation with countries like Mauritius, which trade fair visits will be financed and, with some minor exceptions, they have selected general trade fairs such as in Milan and Barcelona, rather than the much more useful specialised fairs concentrating on textiles and clothing. Mauritius has also complained about bad locations within these large trade fairs, and being inappropriately grouped with the African countries exporting primary products, when Mauritius wishes to promote its exports of finished manufactured goods from the EPZ. EC sponsored participation in these trade fairs is therefore regarded as worse than useless as Mauritius could be utilising its resources more effectively in other, more specialised trade promotion activities. Offers of further EC assistance for participation in trade fairs have therefore been refused.

Manufacturers were similarly dismissive of EC assistance for export promotion and emphasised that marketing was carried out using their own resources to visit fairs both to meet potential buyers and to learn from the presentations of competitors. Buyers from the EC were also often helpful in suggesting lines of products which they would be interested in and which they found some difficulty in obtaining.

EC finance for export promotion is also only available for exports to the EC and not to non-EC/ACP destinations, yet at the same time the EC repeatedly requests Mauritius not to concentrate on the EC market (a warning which is significant given the imposition of VERs during the late 1970s). One possible explanation is that the EC does not want to appear to be diverting "sensitive" goods to other markets. The more immediate explanation, however, appears to be a narrow ruling that EC resources should only be utilised for EC related activities.

The Centre for Industrial Development was also dismissed as irrelevant to the development of the manufactured sector and had played no part in the development of joint ventures between EC and Mauritian firms. As with trade promotion activities, the resources devoted to this activity were so small that they were regarded as simply "symbolic", with no practical significance for the ACP countries.

III.6 Production Accounts of the EPZ

As indicated in Chapter 2 and in section 3.1, the EPZ has provided 87% of the additional employment in the economy over the period 1982-88 and enabled unemployment to fall from around 20% to 5%, while female participation rates have increased from 28% in 1983 to 42% in 1988. Over the same period, the EPZ's contribution to the GDP has increased from 5% to 14%.

This spectacular increase in employment opportunities in the EPZ has not however been obtained by concentrating on labour intensive low value added production, despite the small size of the economy and the absence of a well established industrial base. The ratio of value added to gross exports[9] increased steadily from 30.3% in 1982 (estimated from Forget 1983) to 35.1% in 1987, while estimates in relation to gross output show a similar, though slower increased proportion of value added (see Tables 14 and 15).

Table 14:

Ratio of value added to exports[10] by main product group in the EPZ sector, 1984-1987

Main product	1984	1985	1986	1987
	%	%	%	%
Textile yarn and fabrics[11]	114.0	142.5	114.2	109.4
Wearing apparel	29.1	31.0	31.8	34.7
Watches, clocks and optical goods	18.9	17.3	26.2	24.2
Jewellery	26.0	19.7	20.1	20.2
Other	37.0	37.0	38.7	36.6
TOTAL EPZ	31.5	32.4	33.0	35.1

[9]Note that, with very few exceptions, all of the output of the EPZ must be exported. The purpose of this law is to protect small scale manufacturers producing for the domestic market

[10]Value added in year n as a proportion of average exports of two calendar years: (year n & n + 1)

[11]Yarn and fabrics products not exported, but used locally

Table 15:

Ratio of value added to gross output by main product group in the EPZ sector, 1984-1987

Main product	1984	1985	1986	1987
	%	%	%	%
Textile yarn and fabrics[12]	26.3	23.4	26.0	28.3
Wearing apparel	31.9	33.9	33.8	33.2
Watches, clocks and optical goods	25.6	27.5	25.5	30.6
Jewellery	27.9	27.2	27.8	25.0
Other	31.2	31.1	32.7	34.0
TOTAL EPZ	31.2	31.8	32.3	32.5

Source: MEPD

In addition, part of the intermediate consumption of the EPZ will be obtained from local producers (although some of these inputs will be imported). There is not an input-output table for Mauritius, and so the indirect effects of the EPZ cannot be traced with precision. However, deducting imports of intermediate products by the EPZ from the total intermediate consumption by the EPZ in 1984 and 1987 suggests that local intermediate consumption (for example of transport, storage, electricity, publishing, banking and insurance) is about 20% of total intermediate consumption or 43% of value added.

All of the machinery and equipment required by the EPZ has to be imported and as a result of increased investment in production, this has increased from a low of 6.5% of total EPZ imports to 12.5% in 1988.

A further foreign exchange cost is the repatriation of profits and dividends on foreign direct investment. The production accounts for 1984 and 1987 show a gross operating surplus in the EPZ averaging 50% of value added. From this must be deducted 15% corporate tax, although against this can be set generous depreciation allowances. About half of the equity capital of the EPZ is foreign owned and so just under one-quarter of value added is potentially available for transfer abroad. However, as discussed in section 3.3, it would appear that a large proportion of these profits have in fact been reinvested in Mauritius.

In other words, the EPZ is fundamentally different from the "stylised facts" of an export producing zone existing as a foreign enclave divorced geographically and in its production relationships from the rest of the economy. On the contrary, it is dispersed throughout a substantial proportion of the island and has relatively high levels of domestic value added. This reflects a significant degree of vertical integration in the clothing industry in spinning, weaving, dyeing, printing and in the production of thread, braid, zips, buttons, labels etc. Value added will also increase once the new weaving mills come into production and it is reasonable to expect further expansion in ancillary industries.

[12]Yarn and fabrics products not exported, but used locally

III.7 Characteristics of Employment and Earnings in the EPZ - Male and Female Labour

Another of the "stylised facts" of EPZs, is that they offer employment predominantly for women and at low (exploitive) rates of pay. The first of these "facts" was certainly true in the early years of the EPZ - for example in 1980, 72% of the labour force were women. However, this has decreased since 1984 and in 1988 had declined to just over 64% of employment. This proportion varies from 32% in textiles to 68% in clothing. This has partly been the result of the increasing introduction of shift work in the clothing sector (especially as the shortening of lead times for deliveries has created seasonal pressures on production capacity), while women are more reluctant to work night shifts. A more important factor was the change in minimum wage regulations introduced in December 1984.

(a) Earnings and productivity

Minimum wages and working conditions in the EPZ are governed by Export Enterprises (Remuneration Orders) Regulations. Until December 1984 minimum wages were fixed for men at a higher level than for women, so that women were paid 63% of the male wage (Hein, 1988). After 1984, the differential was abolished, so that the July 1987 regulations stipulated a minimum rate of wages per week of Rs 206 for "factory workers" and Rs 110 for "unskilled workers".

Table 16 provides a comparison of daily and monthly earnings for workers paid on that basis.

Table 16: Earnings by Industrial Group - March 1988

	Monthly Paid			Daily Rate		
Industrial Groups	%	Rs	%increase 1987-88	%	Rs	%increase 1987-88
Sugar	81	1824	19.7	11	53.8	22.7
Tobacco	10	1368		90	35.5	
Tea	67	2319	34.3	37	53.0	39.5
Flower Growing	24	1408		76	32.8	
Textiles	39	2417	16.2	61	47.1	2.2
Wearing apparel (except footwear)	20	2187	19.7	80	41.2	13.9
Leather products (except footwear)	14	3233		86	48.6	
Watches and clocks	100	1342		0	-	
Jewellery and related articles	30	2754	32.6	70	66.3	30.8
Average for EPZ		2210	18.9		43.0	19.4

Source: Bi-Annual Survey of Employment and Earnings, March 1989
Central Statistical Office, 1988

The abolition of differentials on minimum rates of pay has undoubtedly led to greater male employment in the EPZ and this was confirmed in interviews, though the extent of the reduction in differentials is unclear. Comparisons of daily and monthly earnings by industrial groups must therefore be treated with caution since this will, in part, depend upon the proportion of women in the labour force. It is, therefore, significant that monthly earnings in the clothing sector are 20% higher than those in sugar despite the fact that the latter has predominantly a male labour force (75%) while the former has a predominantly female labour force (32% male). The position is reversed however when we look at workers paid on a daily basis. Interviews with EPZ firms indicated that it was the larger enterprises which paid their labour force on a monthly basis and offered better rates of pay and greater opportunities for overtime working. It can be assumed that differences in earnings for male workers in the large establishments in textiles and clothing compared to sugar will be even greater than these figures suggest, and to a large extent explain the migration of labour out of agriculture (1,276 in March 1987/88). This in turn further indicates that the EPZ can no longer be regarded as providing employment for young men and women who could not obtain alternative employment. Expansion of the EPZ will reduce exports of sugar unless capital can be substituted for labour.

The lowest level of earnings is in watches and clocks, reflecting the absence of overtime in the sector (as employers have found that it simply leads to a sharp drop in productivity) and the fact that it is largely a female labour force. Labour costs per worker (compulsory social costs add about 40% to basic wages) are, nevertheless, more than twice the level of the clothing sector (see Table 17) and have increased by 120% since 1984 compared to 41% in clothing (see Table 18). Value added per workers has, however, increased at twice the rate of clothing (78% compared to 39%) and is now 2.5 times that of clothing. Not surprisingly, the watch assembly sector is facing a shortage of labour and further expansion will require further increases in earnings levels.

Table 17: Labour cost per worker in the EPZ sector, 1984-1987

(Rs 000)

Main product	1984	1985	1986	1987
Textile yarn and fabrics	17.1	17.6	15.1	18.5
Wearing apparel	10.0	11.6	12.9	14.1
Wood products and furniture	15.0	19.4	17.8	20.7
Watches, clocks and optical goods	15.0	11.8	31.6	33.0
Jewellery and other related articles	22.0	18.8	23.5	21.5
Other products	11.0	12.1	14.9	20.6
TOTAL	10.9	12.1	13.5	15.0

Table 18 Labour Costs and Productivity in the EPZ			
	1984-87 %increase per worker in		
	Labour Costs	Value Added	%Difference (1-2)
Textiles, yarn and fabric	1.4	13.4	-12.0
Wearing apparel	41.0	39.5	1.5
Wood products and furniture	38.0	71.0	-33.0
Watches, clocks, optical goods	120.0	77.8	42.2
Jewellery and related articles	-2.3	-2.5	0.2
Other products	87.3	29.8	57.5
TOTAL	37.6	31.6	6.0
Source: MEPD			

For the EPZ as a whole, labour costs per worker have increased by 38% while productivity has increased by 32%, though in the vital clothing sector, the increase in labour costs has only exceeded that of productivity by 1.5%. The squeeze on the labour supply in the economy as a whole as well as in the EPZ can be seen from table 18. Earnings in the EPZ increased by 19% in 1988 over the previous year, while prices increased by 9.2%. The maintenance of competition and raising standards of living, however, requires the economy to reverse recent trends and to at least match rising labour costs with increased labour productivity.

(b) Other provisions of the EPZ remunerations order

1. A bonus equivalent to one-twelfth of annual earnings, provided the employee has worked 80% of the working days.

2. Annual leave on full pay of either 12 days (for workers on a 5-day week) or 14 days (6-day week), plus full pay on the 13 public holidays.

3. Sick leave (maximum of 30 to 36 days on full pay) and maternity benefits (12 weeks full pay and Rs 300).

4. Free transport for travel for distance to work in excess of 3.2 km.

5. Specific overtime rates.

6. 45 hour week excluding meal breaks (1 hour) and tea breaks (two of 10 minutes).

The EPZ regulations differ from other sectors of the economy in two important aspects:

1. Compulsory overtime
"A worker may be required to perform extra hours of work in excess of 10 hours per week" (ie in addition to the 45 hours of a normal week) but "no worker shall, except with his consent, be required to perform extra hours of work in excess of 10 hours per week".

2. Termination of Employment
Compensation of not less than 2 weeks' wages for each year of service is only payable after not less than 3 years continuous service with an employer. This compares to a requirement for severance pay in the rest of the economy after 1 year's service and is clearly meant to give EPZ employers the flexibility to expand production in the much riskier export markets compared to the domestic market.

(c) Conclusion on employment conditions in the EPZ

Employment conditions in the EPZ have not been allowed to be determined by individual (and possibly unequal) bargaining between employer and employee but are governed by a set of legally enforceable regulations. There will always be a gap between the legal requirements of employers and their implementation, especially in a developing country. However, the conditions of the labour market are such that employers offering less than the legal minimum will almost certainly not be able to attract and hold labour (although it seems from press reports that conditions of work in some small enterprises are sometimes unsafe and insanitory). The survey data on earnings suggest that the minimum wage rates are paid and that the larger employers pay above the legal minimum. Advertisements for labour list additional benefits such as use of the company's buses for family excursions, medical services for workers and in some cases their families. There is also an inspectorate to enforce standards and, in a small island, sub-standard working conditions become general knowledge. Workers are free to organise themselves in Trades Unions and although participation rates do not appear to be high in the EPZ, their existence (there are about 300[13]) acts as a further check on standards. It must also be remembered that Mauritius provides free education and health (bed: population ratio is 1:332 and a comprehensive network of primary health care) financed out of general taxation. There is therefore little or no evidence of "exploitation" of labour either relative to employment outside the EPZ or to other developing countries (indeed the conditions of employment outlined above are,in certain aspects, superior to those that prevailed in the UK 25 years ago).

[13]MEDIA Fact Sheet No. 5

IV. LESSONS FROM THE DEVELOPMENT OF THE EPZ AND PROSPECTS FOR THE FUTURE

The spectacular development of the EPZ from an agrarian economy almost wholly based on the export of sugar and with a density of population to cultivable land exceeded only by Bangladesh, provides us with an important test case for development strategies. In the context of this study, this particularly refers to the impact of trade preferences and the use of export processing zones as an instrument of trade policy.

IV.1 The Relative Impact of Trade Preferences

The fundamental rationale for trade preferences is based on the infant industry argument (Johnson, 1967), but empirical studies on preferences have failed to test for this objective (Brown, 1988). A second criticism of such studies is that they have failed to distinguish between countries which have either a neutral or an export oriented trade regime in which preferences could be expected to have their maximum potential impact in stimulating exports, and countries which effectively discriminate against the export sector and in which preference can, at best, marginally reduce the discentive to export. A third factor is that while, in general, the potential impact of trade preferences has been significantly reduced by product exclusions, quotas, value limits and rules of origin, these limitations have been substantially relaxed in the Lomé Convention.

The almost total absence of a manufacturing base because of the very small size of the domestic market makes Mauritius a classic test of the infant industry argument. The switch in Government policy towards an outward oriented trade strategy enables us to examine the relationship between this change in policy and trade preferences. The absence of quotas in the 1980s and the inclusion of all products in which Mauritius could potentially export, leaves the rules of origin as the only potential limitation on the utilisation of the provisions of the Lomé Convention.

Preferences cannot be a sufficient condition for export growth and, despite its lack of a resource or a manufacturing base, certain factors were clearly basic to the success of the export sector:

1. The history of the island producing a bilingual population with trading and family links with Europe, Asia and the Pacific.

2. Political stability and harmony despite ethnic and religious differences.

3. Free education and health facilities of a good standard and readily available to all.

4. Government policies which offered incentives equally to foreign and domestic investors and which, after 1982, steadily reduced the effective rate of discrimination against exports.

5. Favourable external conditions and in the terms of trade (improved 55% since 1982). In particular, a growing world market for clothing. For example, apparent consumption of clothing over the period 1985/6 increased by 6.9% in the EC and by 22% in the USA, while the share of imports from developing countries in apparent consumption increased from 15.3% to 17.9% in the EC and 16% to 24.6% in the USA[14].

[14]UNCTAD Handbook of International Trade and Development Statistics 1988

6. Inflows of foreign direct investment from Hong Hong Kong and small scale, joint venture participation from EC (particularly French) companies created an important "demonstration effect" and combined with significant tax incentives, this stimulated local participation in the EPZ.

7. An established financial sector and good external communications systems.

8. The rapid growth of the clothing sector both enhanced the demonstration effect and enabled it to reach a "critical mass". This generated further growth by attracting ancillary services such as the International Wool Secretariat certification scheme, agencies offering sourcing, sampling, production monitoring, quality control and post-production services, export and marketing agencies, etc. Secondly, by inducing vertical integration both forward into affiliate companies marketing products in Europe and specially backwards into the production of previously imported inputs.

Within this context, the Lomé Convention was undoubtedly a key instrumental factor in the development of non-traditional exports.

1. Exports of sugar have been the mainstay of the economy. The EC has consistently produced a surplus of beet sugar over its domestic consumption and, if the UK had not insisted on a guaranteed quota for Mauritius (and other Commonwealth sugar cane exporters) at the time of entry into the EC, this market would, almost certainly, have been eventually closed to Mauritius. The world market for sugar has been generally depressed and the EC price has been, on average, three times the world price. These revenues provided the basis for local investment in the EPZ.

2. Tariff and (MFA) quota-free entry into the EC market stimulated "infant" industries in a number of ways. Exemption from duties of 8% to 14% gave a substantial effective subsidy to production, where value added levels are around one-third of the value of the exported product. Exemption from MFA quotas and guaranteed market access have been fundamental in attracting investment from the NICs (particularly Hong Kong) whose exports have been limited by quotas. The significance of exemption from quotas is particularly illustrated by the case of pullovers, where the import share of Mauritius in the EC market has been allowed greatly to exceed that of any other developing country (the fact that this still only accounts for a very small share of intra-EC trade indicates the extent of protection of the EC market). Quotas have also significantly raised EC prices and thus enhanced the export earnings of Mauritius.

3. Financial assistance under the Conventions, however, has only been of some indirect benefit to the EPZ, while technical co-operation can best be described as symbolic.

Trade preferences should not therefore be interpreted simply as tariff preferences, for at least as important has been the guarantee of market access which the Convention has provided. The safeguard clause which could limit access has never been used, while the imposition of "voluntary" export restraints by the UK and France in the late 1970s was regarded as so politically inept (at a time when the Lomé Convention was being held up as a "model for the new international economic order") by the other member states of the EC that the VERs were quietly forgotten in the 1980s. This equally implies that the trade diversion effect of preferences will, in such cases, be greater than has been estimated from ex ante import elasticities based models.

Whilst it seems clear that an EPZ based on exports of clothing would not have grown to anything like its present level without preferences (and equally the imposition of quotas by the US seems to have curtailed the further growth of exports to this market), this does not

necessarily mean that Mauritius would not have been able to develop non-traditional exports of other products in the absence of preferences, as well as a lower volume of exports of clothing subject to MFA quotas. Indeed, it might be argued that preferences have induced a potentially unstable degree of concentration on a narrow range of clothing exports parallel to that of its dependence on sugar. Without preferences, the industrial structure may have been more diversified and less liable to instability. Whilst such alternative situations provide fertile ground for speculation, the fact remains that all EPZs seem first to develop as "industrial monocultures" (ILO/UNCTC 1988) but that the share of the dominant industry declines over time, as shown for example by the older EPZs in South Korea and Mexico. Also, without preferences, the EPZ would certainly have grown at a much lower rate and given the rapid growth of population in the 1960s/early 1970s, this would have created high levels of unemployment, with all the social costs and potential unrest that this entails.

IV.2 The Export Processing Zone: Myth and Reality

Export processing zones have been subject to the criticism that they have little or no impact on economic development, because they only attract footloose multinational companies, which take advantage of low wage rates to locate simple assembly operations in developing countries. These operations, it is alleged, have low levels of domestic value added and because of repatriation of profits and transfer pricing, they have lower levels of net export earnings for the host country. Furthermore, it is often alleged that this MNE dominated sector fails to develop linkage into the host economy because such decisions are determined by the global production strategy of the multinational. The reality of EPZs is, in most cases, substantially different from these stylised facts (see for example ILO/UNCTC 1988) but even if certain aspects of this adverse pattern of development are observed, it is essential to distinguish between the effects of MNE involvement (and its various characteristics) and the effects of host government trade strategies which may produce these results. In the case of Mauritius:

1. Government policy has ensured that the EPZ has not developed as a geographical enclave and this has avoided the economic and social costs of excessive urban, industrial concentration.

2. Although foreign investment probably acted as an important catalyst in the development of the EPZ, it has never been dominant. The relatively high share of domestic investment compared to other EPZs has not, however, been achieved by Government control, as there are no restrictions on the form and level of foreign control over enterprises. The reasons for this are not entirely clear but may comprise some or all of the following elements. It could be argued that Mauritius is sufficiently geographically isolated from the main markets and centres of manufacturing that it is not of interest to major multinational enterprises (MNEs) in developed countries as a base for export platform investment. Also, its small size of domestic market has not attracted import substituting fdi (for example in comparison with larger countries in Africa). The major multinational countries have principally originated from other developing countries, such as Hong Kong and, to a lesser extent, Taiwan. These companies seek to maintain the growth of exports of sensitive products to developed country markets by pursuing a very active policy of seeking out favourable locations for export platform investment in countries not subject to quotas. Apart from this particular form of multinational involvement, the combination of the locational advantages of Mauritius as a base for exporting discussed in 2.1, together with guaranteed access to the EC market and Government incentives which do not discriminate between foreign and domestic investment, has encouraged the participation of smaller European companies in joint ventures with Mauritian capital.

3. The EPZ is not made up of factories engaged in simple assembly operations, but has relatively high levels of domestic value added and this has increased as the clothing industry has become more vertically integrated. Part of the reason for this may lie in the generally small size of the MNEs involved in the EPZ compared to other EPZs. Large MNEs take a global view of production and may therefore have a greater tendency to produce lower levels of value added in any one location. Smaller MNEs, with less information about production conditions in different countries, but greater informal information through personal contact and with smaller managerial resources, may simply decide to allocate production between the home and the host country according to relative costs of production in these two locations. Furthermore, it appears that where the initial experience in Mauritius has been favourable, then an increasing proportion of production has been transferred to the lower cost location. A further factor inducing higher levels of value added could be the rules of origin of the Lomé Convention which, in the case of clothing, specify yarn as the starting material for duty-free entry into the EC. In the case of Mauritius, however, the argument is of doubtful validity as the spinning and weaving capacity has only substantially increased recently in response to the increased size of the clothing industry and the need for a more flexible response of production in the face of shorter lead times between orders and deliveries. Restrictive EC rules of origin have simply meant that cotton clothing exports to the EC have had, to an unrecorded extent, to pay the full duty of investment for export to the EC has fallen below its potential. It is only now that such exports have reached a volume of production (despite restrictive rules of origin) that weaving mills can be established at a minimum efficient scale of production.

4. Although the EPZ exhibits the normal pattern of creating employment for women rather than for men, the proportion of women in the labour force has significantly declined to 64% in 1988. More importantly, the EPZ has been responsible for a sharp reduction in unemployment from 20% to around 5%, while the sugar sector has experienced a significant loss of labour to the EPZ. Part of this can be explained by the changing structure of the EPZ, both through the introduction of more capital-intensive products (such as textiles) and the substitution of capital for labour in the production of clothing, so that shift systems have been introduced which are not attractive to women. A more important explanation was the abolition of the legal minimum wage differential between men and women workers (minimum wages are now set at the same level for all workers).

5. One problem also associated with EPZs is the lower skill requirement of most jobs. This would appear to be true of Mauritius and the gap between the general level of education of many young people and the low level of skill required in their work, may be an important cause of the problem of absenteeism remarked on by employers. Other explanations for absenteeism put forward are the transitional problems of a society moving from one based on agriculture to one based on the need for factory disciplines, combined with a relatively generous system of sick leave (see section 3.6).

IV.3 Future Challenges

The development of the EPZ has exceeded even the most optimistic forecasts of the Government, and indeed progress has been so rapid that a substantial shift of policy is required to deal with a much more complex situation than existed a decade ago, when the overriding objective was the creation of employment.

1. Labour productivity has been falling while real wages have increased and although there are some indications that the decline in productivity may have been reversed, increased pressure of demand in the labour market suggests that the adverse gap btween earnings and productivity will remain.

2. Competitiveness in world markets has been maintained through devaluation of the trade weighted exchange rate (for September 1988 to September 1989, this was -8% F.Fr.; -7.1% DM; -12.1% $; -4.6%£). However, in a small open economy where imports are over 60% of GDP, devaluation will directly feed through into costs of production, prices, and, in a tight labour market, money wages. Tighter control of the money supply will eventually reduce inflation but only by repeating the social costs achieved in the early 1980s, unless productivity substantially increases.

3. A small economy necessarily dependent on exports (over 50% of GDP) will always be vulnerable to external shocks, but this vulnerability is enhanced in the case of Mauritius by the concentration of its exports. Of total exports, 36% goes to the UK, 23% to France, 13% to the USA and 10% to West Germany. Commodity concentration is also high, with clothing accounting for 50% and sugar for 34% of total exports. Of this, 82% of sugar exports are to the UK, one-third of clothing exports are to France and one-fifth to the USA.

4. This commodity and geographical concentration makes Mauritius vulnerable for a number of reasons. First, although sugar exports are protected in volume terms by the protocol of the Lomé Convention, there is no possibility of this being increased (Mauritius already benefits from the re-allocation of quotas from other ACP countries). Also, at present the UK protects the sole sugar cane refiners (Tate & Lyle) through production subsidies and controls on imports from other EC sugar beet producers. The advent of the single market in 1992 may weaken these arrangements. In addition, the CAP price of sugar has fallen in real terms as the EC attempts to reduce surplus production in the Community. Second, exports of clothing to the US have stagnated as a result of quotas and future growth will depend on increased value (ie moving "up- market") with only some small increases in volume. Third, clothing exports are not only substantially concentrated on France but also on a narrow range of products. For example, 5 seven digit (SITC, Rev. 3) items, consisting of men's or boys' cotton shirts (841.51.00, 843.71.00) woollen jerseys, pullovers and cardigans (845.30.10), cotton T shirts and vests (845.40.10) and scarves etc, (846.93.00), account for about 50% of EPZ exports to France. Exports to France of watch movements and watch straps increase this proportion to 61%. Not only do such high concentration ratios make Mauritius vulnerable to small changes in demand conditions, but they are also concentrated in areas of production which are sensitive to protectionist pressures.

5. Exemption from MFA quotas would seem to have been an important part of the trade preferences under Lomé but although MFA restrictions on clothing seem likely to continue in the EC and USA (despite attempts on the Uruguay Round to eliminate MFA over a fixed period of time), the move to a single EC market will mean that member state quotas under the MFA will have to be abolished and replaced by an overall EC quota. If the effect of this were to liberalise particularly protected markets such as France and the UK, then Mauritius would

face increased competition, even if the overall MFA quotas for EC imports are unchanged.

6. The future for clothing exports is further complicated by the full EC membership of Spain and Portugal in 1993. These countries will not only have free access to the EC markets for their exports of textiles and clothing (thereby increasing competition with Mauritius) but also have to have dismantled their protection of such sectors from EC competitors and accord with the relatively more liberal EC trade regime. This will open up their domestic markets to imports from Mauritius and other developing countries but also potentially add to the protectionist lobby in the EC.

7. Mauritius is faced with an increasing range of competitors from other developing countries (notably China) in addition to traditional competitors such as Hong Kong, South Korea and Taiwan. Furthermore, the Mediterranean countries (particularly Tunisia and Morocco) are, like Mauritius, not subject to MFA restriction, have had relatively more generous VERs imposed on them compared to quotas faced by other developing countries, and are being treated increasingly favourably as a compensation for loss of traditional export earnings (particularly citrus fruits) due to the second enlargement of the EC. Turkey has opened negotiations to become a full member of the EC and even if this is unsuccessful, they may well be offered much more generous access for a potentially considerable volume of exports of cotton clothing based on its high quality cotton production.

IV.4 Policies for Export Diversification

(a) Target sectors

The need for export diversification is well recognised by the Government and indeed the Development Plan for 1988-90 states that "the structure of the Mauritian economy still remains extremely fragile and continues to be vulnerable to external forces" (Ibid, p.1). Policy is therefore "aimed at encouraging investment in the non-textile sectors with emphasis on products and production processes involving more sophisticated technology. This will be reflected in the investment promotion strategy. Incentive schemes will also be introduced to encourage investment in new areas of interest. For the immediate future, the sectors that have been selected for special incentives are leather, printing, jewellery as well as 'haute couture'. Other areas to be considered for extension of special incentives will be electronics, light engineering, precision engineering, plastic processing, mould and die-making and toys" (Ibid, p. 109). Another indication of the rationale for future policies is that "in spite of a substantial fall in the unemployment rate, estimated at 5% for the year 1987, the employment issue still remains at the centre of the new development strategy. However, the primary concern is no longer that of increasing productive employment opportunities, but rather to ensure that job vacancies do not go unfilled for too long" (Ibid, p. 5).

(b) Trade and investment promotion

To assist in the promotion of the EPZ, the Government set up the Mauritius Export Development and Investment Authority (MEDIA) in 1983. MEDIA is responsible for:

(a) promoting export oriented manufacturing production in Mauritius (eg producing, with financial assistance from the EDF, a highly informative file of "fact sheets" for potential investors);

(b) promoting export of goods and services (eg through specialised trade fairs and through the annual production of a cross-referenced "Export Directory" listing all EPZ companies, together with details of the firms and their products). Specialised assistance is especially given to small local enterprises which do not have international marketing know-how.

(c) developing and managing industrial estates.

(c) Training

Contrary to the neo-classical paradigm, developing countries which have succcessfully pursued export oriented trade strategies have also actively intervened in the operation of goods and factor markets. Policy in Mauritius could, in this respect, be criticised for concentrating largely on reducing disincentives to exports rather than (with the exception of building advance factories) actively encouraging the export sector. This has been particularly noticeable in the case of training where large firms which operate training programmes have increasingly lost workers to the many other firms which do not and simply rely on "poaching" through offering slightly higher rates of pay. This simply reflects the fact that trained labour is essentially a public good and without Government intervention, private investment will be less than socially optimal. A further indicator of the urgent need for training is that while the Government "actively encourages" the employment of Mauritian counterparts in enterprises employing expatriates, they are unable to insist on this because of the lack of suitably qualified personnel. A further problem has been a proliferation of private agencies providing "training" of highly variable quality.

Proposals in 1989 were therefore introduced to set up an Industrial Training Fund. The details of the scheme were not available at the time of the field study but the general provisions would appear to be based on a 1% levy on the wage bill of firms, matched by an equal contribution from Government, this fund being made available "to assist in the training needs of industries, either individually or collectively". In addition, firms will be able to offset twice the cost of approved training programmes against their corporate tax liability.

In order to co-ordinate private and public training programmes in relation to the needs of the country and to establish minimum standards, the Industrial and Vocational Training Board has recently been established. "One of the main activities of the IVTB will be the registration of private training institutions", while under the aegis of the IVTB a "national certificate of proficiency " will be issued for all approved courses (Ibid, p. 227).

Public sector training has expanded in a number of directions. In April 1988, the Abercombie VO-TECH centre was established, initially to run crash courses of four months' duration in footwear and leathercraft ("identified as having high export potential", Ibid, p. 228) and producing 180 students per annum. Once the demand for leather workers has been met, the centre will be re-equipped to meet other needs. In addition to these short-term courses, longer term courses are planned at a new technical institute covering basic electronics, computing, maintenance and repair of machines etc. The University of Mauritius, in addition to its Bachelor of Technology course, also started a Certificate course in General Textile Technology in 1987 (intake of 20) and plans to establish a Centre for Textile Technology, providing Diploma courses in the latest techniques, carrying out research on production technology and providing commercial services to the textile and clothing industry. The largest single public sector training contract of Rs 90 million has been awarded to Siemens to provide training in the electronics field, and the expectation is that Siemens will follow this up by locating a production plant in Mauritius. MEDIA also opened discussions in 1989 with a small number of Italian shoe manufacturers, with the same objectives of training and production for export back to the EC.

(d) Difficulties with the export diversification strategy.

The World Bank Report has criticised this strategy as having no convincing rationale and has claimed that it would be better to leave such decisions to the private sector and for the Government to provide information, guidance on exports and assistance with training. This criticism, however, seems to be misplaced and contradictory. It is misplaced, because the Government is not seeking to displace private investment decisions and engage in central planning and the allocation of resources, but rather in creating the necessary environment and infrastructure for what is clearly perceived as the necessity of increasing labour productivity by increasing the skills of the labour force. It is contradictory, because the Government cannot assist in the provision of training unless it has some perception of what skills are likely to be required. Mauritius is not like most other developing countries where the export sector is developing from a manufacturing base producing for the domestic market and where there are clearly identifiable skills shortages. The problem is an *ex ante* one where private investment, particularly foreign involvement, will not take place at the required rate unless there is a supply of labour with the requisite skills.

However, whilst fully recognising the need for the Government to form a broad view about future manpower requirements, certain aspects of current policies give some cause for concern:

1. The emphasis on footwear and leather goods appears to be derived from:

   (a) the existence of a small but successful export sector in leather goods;

   (b) the notion that skills acquired in the clothing sector are transferable to leather goods.

   With regard to the export experience of Mauritius, this has been particularly successful in the case of leather watch straps (accounting for 42% of EC imports of "leather clothing accessories" from developing countries in 1987) and leather handbags (Mauritius is the only serious ACP exporter to the EC), where the general quality of the product is indicated by the fact that unit values are twice those of other EC imports. "Protective leather gloves" also used to be an important export but in common with other developing countries (and in contrast to EC imports from developed countries) this market has decreased, and export volume is now only at the low levels reached in 1979. The success of the first two products has been due to the particular activities of the French based firms, and while they may continue to expand, there are no indications of other firms following their example, There is one small firm exporting quality leather jackets, mainly to Germany (but also to Switzerland and Scandinavia) but prospects for future expansion do not appear to be good as skilled labour is very scarce and the short term Government course is not regarded as an adequate substitute for the "leather schools" which form the basis for competitors reaching high standards of quality in Germany and Austria. The possibility of exporting leather footwear may also be questioned as this is a highly competitive market at all levels of quality, ranging from lower priced "mass market" shoes from SE Asia, Brazil, E. Europe and Portugal, through to quality shoes from Italy and other EC member states. A number of ACP countries have attempted to enter the market, but all have failed to sustain exports to the EC and the example of Zimbabwe is instructive (Riddell, 1990). Stimulated by a tariff preference of between 8%-20%, Zimbabwe exported leather shoes to the EC based on its own high quality leather, reaching a peak of one-third million Ecu in 1981, but by 1987 these exports had virtually ceased. The reasons given for this were first, the inability of Zimbabwe to react quickly enough to changes in design and colour because of foreign exchange shortages and distance from the EC market, and second, difficulties in producing the high quality finish required by the market. These problems occurred despite the fact that, in the case of Bata Zimbabwe, a technician had been sent down by Bata Italy to help with production (Riddell, p. 43). Zimbabwe has, however, been able to export shoes to S. Africa, the PTA and SADCC and a similar strategy may be possible for Mauritius.

2. In the case of electronics, the strategy of involving a major multinational company is undoubtedly correct, but the establishment of a manufacturing base will not be easy. The rationale behind this approach seems to be based on Balassa's (1977) concept of the "ladder of comparative advantage" in which the NICs are envisaged as moving on to more advanced products "leaving room" for countries like Mauritius to take their place. Singapore is frequently quoted in this context in Mauritius. Planners should be aware, however, that Balassa's approach is highly controversial. First, there is some evidence that, while the NICs have moved up the ladder into human and physical capital intensive goods, dynamic scale economies have helped maintain a comparative advantage in traditional goods. Second, the retention of comparative advantage has been assisted by technical changes which have significantly substituted capital for labour in previously labour intensive operations in, for example, the semi-conductors industry and the assembly of electrical and electronic goods and equipment. This rate of factor substitution is so high that plants in developed countries are now operating on lower unit costs than more labour intensive plants in developing countries. Third, combined with these changes in technology have come changes in organisation, with a reduction in the scale of manufacturing operations, combined with an increasing grouping of activities (from design, through production to associated services), closer to their customers so as to be able to respond quickly to changes in the market (Kaplinsky [1985]). In other words, the international division of labour in the 1990s can be expected to be substantially different to that of the 1970s, and within this, offshore production in developing countries may be increasingly less atrractive to multinational companies.

3. There appears to be a divison of opinion in Mauritius (as elsewhere) as to whether the rules of origin are a barrier to export diversification. One school of thought holds that Mauritius should be able to meet the process and value added criteria and indeed it is essential that this occurs if the country is to move "up market" and increase levels of productivity. In the long term this is certainly valid, but the alternative view is that for an economy like Mauritius, with a narrow and limited manufacturing base, this process will take take time. For example, "simple assembly" of non-originating parts disqualifies a product from receiving duty-free entry into the EC. In the Lomé 3 rules of origin, most electrical goods and components require that the non-originating (ie non-ACP or EC) materials used in production should not exceed 40% of the ex-works price of the product and (where appropriate), the value of non-originating diodes, transistors, semi-conductors, electronic integrated circuits and micro assemblies should not exceed 10% of the ex-works price of the product,. The ability to count imports from an EC company (eg Siemens) as originating products may, to some extent mitigate these constraints, but much of the world's supplies of these components come from countries outside the EC. These "cumulation provisions" inevitably weaken the bargaining position of Mauritius in negotiations with EC multinationals compared to multinationals from non-EC countries (McQueen, 1982). It is always difficult to determine whether potential investment has been frustrated by restrictive rules of origin, but MEDIA has identified seven cases where this has occurred: manufacture of; telephones (Hong Kong), watches (Hong Kong), electronic toys (Hong Kong), shoes (Taiwan), umbrellas (Taiwan) and assembly of; consumer goods (Taiwan), radio, radio-cassette players and hi-fi equipment. Negotiations concerning the rules of origin have tended to centre around possibilities for increasing the permissable level of non-originating imports by a fixed amount. Such discussions, however, have little empirical foundation (as have the basic rules of origin themselves) and in any case, production conditions and availability of supplies of originating products vary considerably from one ACP state to another. What is required is flexibility in the application of rules of origin, with derogations being granted for a sufficient period of time and on a realistic schedule which enables an ACP country, particularly a small isolated country like Mauritius, to progressively build up its manufacturing capacity and thereby increase levels of domestic value added. Certain reforms have been made to the rules of origin in Lomé 4 (details of which are not available at the time of writing) in

terms of acceptable levels of minimum value added and automatic derogation, but it remains to be seen whether the necessary degree of flexibility in implementation will be present. Without this, it is difficult to see how preferences will provide much incentive for export diversification in Mauritius in sectors other than textiles and clothing.

4. International tourism has been seen as a further source of export diversification, and during the period 1988-90, the National Development Plan expected "Trade Restaurant and Hotels" to account for 6,000 or 16% of new jobs created (Ibid, p. 223). In the context of the early 1980s, one can easily understand the attraction of tourism as a means of creating a rapid increase in employment. In the context of the 1990s, with an increasingly tight labour market, such a rationale is redundant. Furthermore, contrary to popular belief, tourism does not create a demand for unskilled labour but rather diverts educated labour from other occupations. It would appear that the decision to continue to expand tourist arrivals was taken without a cost-benefit appraisal of this sector, but it would seem clear that the direct and indirect import demands of this high income class tourism are very substantial, while it would also appear that most of the hotels are operated and probably substantially owned by foreign enterprises. Furthermore, the possibilities for tourist expenditure outside the hotels on locally produced goods and services are very limited. This suggests that the return to the Mauritian economy of additional resources devoted to tourism is probably significantly less than those resources devoted to increased production in the EPZ. The social costs of tourism are however clearly recognised and paras 3.15 and 3.17 of the Development Plan refer to the sharp decline in public access to beaches in the wake of increasing hotel and other tourist related development (this is a particular problem in the area around Grande Baie) and to the social and cultural pressure of a tourist/population density of around 200 per thousand visitor arrivals. Lack of comprehensive planning and management of land resources has also blighted certain areas of the country, while pollution is becoming a serious problem. International tourism has been of some benefit to Mauritius, not least in adding to its attractiveness for foreign investment in the EPZ and in helping to improve air transport, but it is difficult to escape the conclusion that the time has come to call a halt to future expansion.

5. By contrast, agriculture appears to have been largely neglected in the export diversification strategy. Non-sugar production has been concentrated on import substitution and again no clear cost/benefit appraisal seems to have been conducted of alternative uses of agricultural resources. Instead, strategic decisions seem to have been made that sugar production must be maintained (para 12.8), that there must be increased self-sufficiency in certain food commodities and improved food security in general (para 11.25). Against this, resources to expand exports of high value crops (para 11.26) seem meagre, despite the outstanding example of exports of anthuriums. Margins of EC tariff prefences on these products are generally high and preferential access to the EC market may be enhanced by total or partial exemption from calendar restrictions on competing products. As discussed in Chapter 3, some research has been done on the development of exotic tropical products, and studies commissioned on export potential, but these studies appear to be supply determined, providing a "shopping list" of products which Mauritius might be able to produce, rather than a careful analysis of demand conditions with respect to competing suppliers. In this respect, the experience of Kenya and Zimbabwe is instructive. Kenya exports haricot beans, avocados, canned pineapples, and various forms of cut flowers to the EC but faces particularly strong competition in exporting pineapples (Cote d'Ivoire and Ghana), mangetout peas (Zambia and Zimbabwe), courgettes and capsicum (Spain and Cyprus), passion fruit (Zimbabwe), avocados (S. Africa, Israel and Australia) and mangoes (S. America, Pakistan and India). Bulkier products, such as mangoes, pineapples, avocados and papaya will have to be transported by sea because of limited air cargo space, but this requires large consignments which will ripen at the same speed *en route* [Stevens, 1990]. Zimbabwe has become a major exporter of mangetout peas partly because of its ability to grow and supply high quality produce which is air freighted to the UK and partly through family connections between a major grower and

Marks and Spencers. As a result of this success, other high quality food chains have placed orders for peas, beans, tropical and sub-tropical fruits (Riddell, 1990). This case study emphasises the importance of being able to convince wholesale purchasers in Europe that produce can be supplied on a reliable basis and this has created some difficulties in diversification, for example, into passion fruit, despite high quality (Riddell, p.36).

IV.5 Conclusion on Policies for Export Diversification

The outstanding achievement of Mauritius has been to build a large and competitive clothing industry in virtually seven years. The structure of the industry is being rapidly deepened and this will both increase levels of domestic value added and enable exporters to counteract rapidly increasing competition from other developing countries by moving away from mass produced, made-up garments, into higher value products. Indeed, recent investment by the largest knitwear producers in the latest technology has already had this effect. One of the key factors determining competitiveness in fashion clothes is rapid and flexible response to highly variable market conditions. Small manufacturers are frequently best at responding in this way, but they need to be part of a closely integrated and comprehensive chain of manufacturers and producers of ancillary services, and it is in this respect that a more active Government policy could strengthen the competitiveness of the clothing sector.

In general, the rationale for export diversification in a small economy such as Mauritius, with rising labour costs, should probably be to avoid technological sophistication for its own sake or because the NICs, with their large supply of skilled labour, have been able to develop these industries. Rather, the emphasis should be on "market niches" where the design and finish of manufactured goods is important. Small and medium-sized producers have often both the competitive advantage and the enterpreneurial flair to seek out such opportunities, and governments can assist this process by ensuring that the general design, technical and managerial skills are available to enable producers to respond to such opportunities. The financial sector is also often crucial not only in providing finance but also guidance on the financial management of small enterprises and on overseas trading.

In terms of macroeconomic policy, this paper has questioned the wisdom of continuing to depreciate the real effective exchange rate. Not only does this add to inflationary pressures, but also runs contrary to policy objectives. Stabilising the EER or even allowing a slow appreciation would put pressure on firms to control labour costs and increase productivity. It would also encourage firms to move out of the production of low value, mass market goods, into higher value products. It might also be useful to consider whether the regulations separating the EPZ from the rest of the economy are really necessary, given the dominance of the EPZ in manufacturing activity. EPZs are always second best policies to free trade and simply produce economic costs in terms of a misallocation of resources.

The Lomé Convention has been an important factor in stimulating the growth of the EPZ, but two areas of the Convention need to be improved. First the rules of origin limit the ability of the economy to take advantage of preferential access to the EC market and diversify into manufactured goods other than clothing. Second, the complementary provisions of the Convention concerning export promotion and technical assistance are wholly inadequate and too restrictive in their usage. It is ironic that both these factors limit the ability of Mauritius to diversify its exports whilst at the same time the EC complains that Mauritius has concentrated too much of its exports of clothing to the markets of the member states. Much greater flexibility in the application of the rules of origin, particularly through the derogation procedures, and in the use of the financial, technical and trade provisions of the Convention, is clearly required.

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