Mauritius: Sustaining the Competitive Edge

Mauritius is synonymous with an African success story. Over a span of some 25 years real growth averaged 6 percent per annum, resulting in a near 4-fold increase in real per capita income and the elimination of unemployment. Growth was export-led, fueled by relatively cheap labor and preferential access to markets in Europe and the USA for the country's principal exports, sugar and garments. Notwithstanding this success, there are growing challenges to competitiveness and the sustainability of growth. New competitors have emerged in the traditional Mauritian labor-intensive exports, and returns to investment in the Export Processing Zone (EPZ) declined steadily in the late 1980s and early 1990s. The core problem is that productivity is not increasing fast enough to keep pace with wages that have been rising as a result of near full employment, thus eroding competitiveness. Moreover, past successes were built on a fragmented incentive environment. The perpetuation of segmented factor (labor and capital) markets in an era of scarce human and capital resources leads to the significant misallocation of resources, undermining the competitiveness of the economy as a whole. To sustain growth, Mauritius is in the process of:

- strengthening its technology capacity to ensure that productivity increases match rises in real wages; and
- enhancing flexibility in the markets for labor and capital so as to enable them to flow to their most efficient uses.

To achieve these objectives, the government and its partners are focusing their efforts on developing a more supple and competitive incentive framework while building the structures for a know-how rich and information based economy. The World Bank is supporting this process through Economic Sector Work (ESW) - *Technology Strategy for Competitiveness*, and two subsequent projects, *Technical Assistance to Enhance Competitiveness* and *Services Sector Modernization*.

Past Sources of Growth

As in other countries with limited resources, growth in Mauritius is driven by an expanding labor force, capital accumulation and increased factor productivity. Between 1983 and 1986, as EPZ employment tripled - with the increasing participation of women - productivity fell by 10 percent. In the mid-1980s, capital accumulation became another source of growth, as firms mechanized fabric formation and integrated upstream. Between 1988 and 1991, productivity rebounded, rising by 4.9 percent per annum in constant dollar terms, which while a commendable result, was not enough to offset an 8.5 percent per annum increase in real wages over the same period.

The Kernel of the Problem

On the one hand, Mauritius faces new competitors in its traditional labor intensive exports and on the other hand, the formidable task of improving productivity to levels achieved by newly industrialized countries. Mauritian wage levels for garment manufacture were estimated at $1.28 per man hour for 1991, much higher than the wages demanded in China for example ($0.25). In contrast in 1991, productivity in the Mauritian EPZ stood at $3,247 per man year, compared to $12,157 in Singapore's garment industry. Despite efforts by EPZ firms to upgrade the quality of their products, the value-added content of exports has declined steadily from 42 percent in 1983 to 36 percent in 1991. During the same period, the share of labor costs as a proportion of export value declined only marginally from 20 to 19 percent, and as a result operating surplus in the EPZ was squeezed down from 22 percent to 17 percent of export value. In short, Mauritian manufacturers have not been able to upgrade their product lines fast enough to compensate for falling margins on world markets, due to increasingly intense international competition.

The East Asian Experience

Mauritians are rising to the challenge with their usual mixture of pragmatism and innovation. They view their country as a potential Indian Ocean "tiger" following in the footsteps of the Asian Newly Industrialized Economies (NIEs), able to achieve financially and environmentally sustainable growth, with the benefits shared equitably by the population. The two common orientations of NIE growth strategies are:

- ensuring the business environment is private sector-friendly and export oriented; and
- promoting the development of technology support systems.

Given its small size - with a population of only 1.1 million - narrow industrial base and its high dependence on external trade, Mauritius is taking its cue from the Hong Kong and Singapore approaches with their emphasis on a competitive regulatory framework and focus on technology-support services in developing a conducive business environment.

The Vision

Mauritius' vision is to grow at 6 percent annually through the year 2000, which would bring per capita income to US$4,000 by 2001 (US$2,700 in 1992) and US$6,000 by 2010. In this vision is embedded the concept that in the immediate process of diversification and upgrading the country will move to a new plateau of productive capacity where competitiveness will be determined more by the country's ability to compete on quality and quick response than simply cost alone. In the near term, the island is striving to consolidate existing strengths through enhancing competitiveness and productivity in garment manufacturing, high-end tourism and sugar exports. Beyond the immediate
future, the strategy is to diversify into new activities, higher value-added textiles and garments, the production of non-sugar crops, and, capitalizing on its unique mix of assets - a literate and dextrous bilingual population, strong historical ties to Europe and Asia and a gateway to Africa - the development and export of financial, consulting, trade, communications, education, and other information-intensive services.

**Developing a Competitive Incentive Framework**

As part of the competitiveness strategy, the authorities are pursuing a number of reforms to ensure the efficient allocation of labor and capital. Tariff reform in parallel with the introduction of a value-added tax to replace sales is required to move towards an undistorted low tax environment. The objective of creating a level playing field for all enterprises and removing residual pockets of anti-export bias is central to this process, which will also entail the consolidation and rationalization of some 12 distinct incentive certificate schemes. The labor market too has in-built rigidities. While the EPZ is starved of labor there are underutilized labor reserves in the civil service and sugar industries. The reform of labor laws in the sugar industry could release up to 10,000 workers to other sectors. Mauritius has 5 civil servants per 100 inhabitants, a proportion that has remained unchanged after the economy reached full employment, and well below the international average of 2-3 per 100. Key to improving outward labor mobility from the civil service is the reform and integration of public service retirement savings plans into the private sector system, to both encourage greater savings and facilitate their portability. The investment climate is particularly important to technology acquisition. The experience of Singapore shows that for small countries like Mauritius, with a brief industrial history and limited technological capability, foreign investment can be an effective instrument of accelerated technology transfer and can allow countries to leapfrog stages of economic development. Foreign direct investment from Hong Kong and, to a lesser extent, France and Taiwan played an important role in the development of the EPZ in the early 1980s. New foreign investment in the late 1980s and early 1990s has since slowed. In this regard, both foreign and local investors must follow cumbersome procedures for investment approval, including certificate status for the myriad of incentives, work permits and various other licenses. An initiative is currently underway to reform the industrial investment authorization process in line with efforts to rationalize the incentive environment.

**Building Up Technology Support Structures**

The first phase of labor-intensive industrialization, with the exception of the sugar industry, involved simple skills and technology, with little requirement for technology support systems. Recently, larger Mauritian textile manufacturers have been able to enhance their capacity to compete through the upgrading of activities amenable to mechanization, such as knitting. However, in upgrading production structures, Mauritians soon found that it is no longer just access to labor and the acquisition of machinery that are important, but that a third element - *know-how* - has become critical in determining competitiveness. This third element demands a strong body of expertise and support in three key areas.

- First, systems need to be developed to ensure that enterprises have the know-how to achieve the quality and prescribed standards of products and processes that they are diversifying or upgrading into (quality services).
- Second, systems also need to be developed to ensure that factors of production are efficiently used in achieving these quality standards (productivity services).
- Finally, capacities need to be developed on how best to adapt technologies to the local
environment and to find new ways of improving product quality and design (technology effort and design services).

**Productivity.** Labor shortages and inadequate human resource management have given rise to high labor turnover, high absenteeism and strained industrial relations economy-wide, which is a major deterrent to new foreign investment and impedes capacity expansion by existing firms. Information on productivity and competitiveness trends, which are important to public and private sector decision making, is extremely limited. A program to introduce productivity measurement at both the company and sectoral levels, along with productivity awareness campaigns, is being supported to raise the consciousness of both management and workers on these issues. Apart from improving general awareness, productivity levels in EPZ firms can be boosted through improved technology application. Most local firms are not aware of best international practices, and consequently are not fully conscious of the magnitude of benefits that could be gained from applying these procedures to their production and management processes. Quick productivity gains could be achieved through relatively minor improvements in production processes (e.g. work-flow organization: introducing conveyor - manual or automated- cloth handling procedures as opposed to the conventional bundle system; and phasing out traditional assembly lines in favor of group work systems) and labor relations. Local private sector delivery of productivity services is virtually non-existent, though some production managers reportedly undertake sporadic consulting work. To develop a technology-support system which facilitates access to productivity services, while simultaneously encouraging the private sector and, wherever possible, domestic delivery of these services, a cost sharing fund, named the Mauritius Technology Diffusion Scheme (TDS), has recently been instituted. The cost sharing concept is widely used in other countries to develop markets in specialized services. The object of the scheme is to offset the private sector's learning costs in the initial acquisition of technology know-how, and to promote technology diffusion through the strong demonstration effects that such acquisition will have. The attractiveness of the scheme is that it is demand-responsive and promotes private sector delivery of technology services, avoiding the creation of heavy public institutional structures, whose creation would be difficult to justify in small island economies like Mauritius. **Quality.** Mauritius exporters have considerable potential for increasing value-added by developing higher-quality products and services that command higher unit prices in developed markets. Furthermore, with reject rates in Mauritius estimated as high as 3 times those in industrialized economies, quality management needs to be dramatically improved. The quality of a product or service is determined by either formal and/or informal standards defining its attributes. Increasingly sophisticated buyers are requiring not only product certification, but certification of the quality system for the production process and/or certification of personnel whose skills (e.g., welders) are critical to the process. Ensuring the achievement of these standards (both formal and informal) requires ready access to credible testing laboratories with equipment that is periodically calibrated to high-precision measurement (metrology) standards. All these elements combined -Metrology, Standards, Testing, and Quality - constitute the MSTQ infrastructure. In the face of growing international competition, and in order to maintain or capture export markets, Mauritian enterprises are coming under increasing pressure to upgrade the quality of their products and/or to demonstrate the attainment of quality standards. As a result, demand for MSTQ services in Mauritius is growing fast, particularly for the ISO 9000 quality management standards, which requires that a demonstrably effective quality system is in place. In apparel assembly, as in other industries, buyers faced with the choice of using suppliers or sub-contractors from different countries with similar costs are choosing certified users of this standard. To assist firms to improve Total Quality Management (TQM) and attain ISO 9000 standards, government has developed an integrated MSTQ strategy. The private sector is being encouraged to provide most of these quality services, especially in the area of consulting, through the TDS. Government does, however, need to take a lead in the provision of TQM and ISO 9000
assessor training, in upgrading the necessary testing and metrology infrastructure required in both the delivery and use of private sector MSTQ services, and in developing an independent laboratory accreditation scheme. To this end, initiatives are under way to assist the Mauritius Standards Bureau in:

- establishing a national quality system; management and institutional upgrading; and
- developing complementary MSTQ services and support facilities to those provided by the private sector.

**Technology Effort.** While Mauritius has considerable research expertise in the agricultural sector, particularly in sugar production and processing, because of economies of scale, there is virtually no formal industrial Research and Development (R & D) in Mauritius. Some of the large Mauritian textile groups carry out R & D activities on an ad hoc basis, mostly to adapt foreign technologies to local conditions. This is an appropriate orientation given Mauritius's relatively small economy. There is little sign, however, of unmet demand for industrial R & D, and certainly no immediate requirement for sponsoring any public industrial R & D institution. **Design.** The experience of Asian NIEs shows that developing local design capabilities can play an important role in helping firms increase value-added and sustain competitiveness despite high labor costs. Both Hong Kong and Singapore have succeeded in developing local brand names, and are now recognized as distinctive and innovative design centers. In targeting this objective, Mauritius has, however, a long learning curve to climb. Currently, most Mauritian firms receive their designs from their customers, principals or parent companies. However, a few local manufacturers have their own capability, either in-house, or through contracts with local designers. In fostering design capabilities, Mauritian manufacturers should initially develop their ability to interpret efficiently and creatively the patterns provided by their overseas (mostly European) customers. Only in the medium to longer term is it expected that a market for distinctive Mauritian designs will develop. To stimulate design capabilities within Mauritius the cost sharing TDS will improve access to foreign expertise with specific reference to the technical aspects of design (particularly the marking, grading and cutting of fabrics in the textile industry) for which there is a strong current demand.

The ability of a country to effectively harness international technology is key to sustainable growth. The close cooperation between the government and the private sector in Mauritius as it gears up to face the challenges of the next century sets a useful example in this regard for Sub-Saharan Africa.

---