

economy as a whole. Metallic minerals exist, but no deposits are known to be commercially exploitable. An exception is found in two deposits of copper around which efforts now center to develop a copper mining and fabricating complex to provide employment for, hopefully, up to 4,000 people.

Of Puerto Rico's known physical resources, only its combination of fine weather and beaches seems capable of supporting expansion of a large primary industry. External tourism has been one of the most rapidly advancing sectors of the economy, and it seems likely that its growth will continue. But among the sectors of the economy on which economic growth is so dependent, tourism still accounts for *only 6.5 percent of total Commonwealth gross product*, only about one-eighth as much as manufacturing. Employment in Puerto Rico attributable to tourism is less than 10,000 jobs.

The Commonwealth of Puerto Rico is by no means so poorly endowed that an adequate level of living cannot be achieved for its people. Its resource limitation implies, however, that Puerto Rico must bring from abroad—mostly from the United States—the full range of materials and products it needs. To pay for these, it must be able to produce and ship out a necessarily much narrower range of products but in comparatively larger volume. Its shipments of agricultural and industrial products, and its income from non-resident tourists, must be of sufficient value to pay for the thousands of products that cannot be efficiently produced locally but which are needed for an adequate level of living. Thus, the development strategy for the Commonwealth of Puerto Rico *must* be specialization in the crops, products and services in which nature or man-made conditions give production in Puerto Rico a cost advantage in its own or other penetrable markets.

The significant growth of the Puerto Rican economy during the last 15 years is, of course, attributable almost entirely to the fourfold increase in the value of merchandise shipments out of Puerto Rico, mainly to the continental United States. The investment needed to produce this export increase also came mostly from the United States. Thus, a penetrable "outside" market, plus an inflow of investment funds, had enabled and has largely financed a fourfold expansion of total production—destined for use or consumption outside Puerto Rico. This, in turn, has financed an approximately equal expansion of merchandise shipments into Puerto Rico originating in the Mainland, and results in more than a tripling of the economy as a whole.

The factories which have to date been responsible for Puerto Rico's economic development are not a cross-section of manufacturing in the United States. They are concentrated in industries in which production and distribution from Puerto Rico can be at a lower cost than in competitive areas in the United States. Their characteristic difference is that they are concentrated in the production of nondurable goods, especially apparel and foods, where comparatively low wages are paid even in the United States. Except for petroleum and stone, clay and glass products, every industry group in Puerto Rico with a greater concentration of employment than in the United States is a relatively low wage industry in the United States as well as in Puerto Rico. This partly explains the vulnerability of most Puerto Rican manufacturing industries to the wage increases that are necessary to provide an adequate standard of living. At the same time, many industries that are of great importance in the United States manufacturing scheme are entirely absent from Puerto Rico. Among the durables, there are many absentees including all smelting and refining of metals. Lack of these basic metal industries largely accounts for other "absentees" from Puerto Rico's industrial base, such as ordnance, autos, aircraft and many other heavy machinery and fabricating industries.

The heavy and more highly technical industries which abound in the States typically pay higher than average wages. They require more fixed capital per worker, and thus may be considered more permanent than the light industries in which Puerto Rican employment has been concentrated. Throughout the world, metal-based heavy industry is concentrated where ores and usually coking coal are also concentrated. Petroleum, however, may be shipped economically over greater distances. Petroleum refining and related chemical industries are, except for a few industries based on locally available raw materials or scrap materials, the only heavy, capital-intensive industries which are demonstrably feasible in Puerto Rico.

The Commonwealth of Puerto Rico now has a higher concentration of employment than the continental United States in only two basic industries: oil refining, based on imported petroleum, and cement manufacturing, based on local