Warsaw is the country's largest electronics centre. Its factories produce electric lamps, radios, cassette recorders, semi-conductors, television sets, measuring devices, minicomputers, telephones, telecommunications equipment, and cathode-ray oscilloscopes. Poland produces its own computers from facilities located in Wroclaw. The town of Dzierzoniow specializes in radios sets and radio equipment. Radio and television receivers are also produced in Bydgoszcz, Lodz and Wrzesnia. The city of Radom is a centre for the manufacture of telephone equipment.

Predictably, a good deal of the electronic industry located along the Baltic coast is connected with ship building and the production of electrical systems for ships. Similar industry-oriented sub-sectors of the electrical industry are concentrated around the country's mining and textile centres.

Personal Computers: Personal computers are worth special attention, because Poland is undergoing rapid computerization. About 50,000 personal computers were purchased in 1991 alone, and estimates suggest that there are now some 200,000 computers in the country. Within the not-too-distant future, Poland will begin to produce personal computers, using its already developed electronics industry to replace imports of western computers. The company that helps the Poles accomplish this goal will establish a commanding presence in the Polish marketplace. A significant and growing market also exists for all the infrastructural and peripheral hardware and software that goes with computers: cables, systems, software programs, optical cables and the like.

Telecommunications: The Polish telephone system has long been the object of complaint and ridicule. It is clear that Polish industry cannot hope to achieve world standards of productivity without an appropriate telecommunications infrastructure. It has been estimated that it will cost \$US 15 billion to modernize the country's telecommunications systems. Several major western telecommunications manufacturers, among them Canada's Northern Telecom, have already secured contracts for modernization of certain parts of the system. Others will undoubtedly follow. For further details, see Section IX.

Office and printing equipment: Accelerated computerization and the improvement of telecommunications are directly linked to the efficient administration and operation of business. Better office systems and machinery are important to such improvements. The use of modern office machines like photocopiers and telefaxes is growing steadily. Imported business

machines are currently in heavy use, but almost any of them could be manufactured in Poland under licence from Western patent holders.

## **Agriculture and Food Processing**

The agricultural sector is a continuing bulwark of the Polish economy. The food processing industry alone accounts for 10% of the industrial work force, 9% of all fixed assets, and 20.3% of total production (second only to electro-engineering). Numerous business opportunities may be found in areas such as food production, harvesting, processing, packaging, marketing, and distribution. Poland needs modern machinery and equipment as well as process know-how in all these areas.

The industry has suffered from declining levels of investment since 1975. As well, earlier investments were concentrated in huge new food processing complexes, rather than the upgrading of existing plants or the creation of smaller local facilities. As a result, a significant regional imbalance has been created. It is characterized by too much plant with too little food production in western Poland, and too little plant with too much food production in the East and Southeast. These large plants require inputs to be transported from remote parts of the country leading both to a deterioration in food quality and a rise in costs.

Most food processing equipment is outdated, and its technical condition is poor. Limitations in processing capacity are noticeable in grain milling, edible oil, sugar, potatoes, vegetables and fruits, baking and dairy products. There are also shortages of cold storage capacity.

Given the country's enormous food production capabilities and the needs of its population, it is easy to identify priority areas. They include the production of baby foods and dietary products, protein concentrates, and animal feed additives, and the processing of potatoes, fruits, vegetables and herbs.

Another issue is the availability of proper packaging made of metal, paper, cardboard, plastic, or glass. Shortages of these materials and their associated technologies affect Poland's ability to export food products. Poland also needs better freezers and other food storage facilities at the local level. It will be necessary to rationalize the entire network in order to match the capacity of processing facilities to local food production. The necessary projects in these areas do not require large amounts of capital, and they can be completed quickly so that pay-back is also relatively quick.