

toward hard currency settlements and world prices began to erode this trading relationship. Since the disintegration of the Soviet Union itself, Poland has sought to reformulate its relations with the newly independent republics on its eastern borders. Now, amid growing uncertainty about the Russian economy, Poland has begun the search for alternative sources of oil and gas.

The Gulf War hit Poland particularly hard because it had been relying on Iraq to supplement its oil supplies. Poland had built a number of turnkey factories in Iraq and was hoping to be repaid in oil. Early in 1990, Poland concluded a deal to purchase 1 million tons of Iraqi oil at \$US 17.60 a barrel. Only a quarter of this amount had been delivered when United Nations sanctions were applied. Nevertheless, Poland joined the western boycott of Iraq and did not receive further deliveries.

Alternative forms of energy: Poland needs expanded energy supplies, and it will have to use its existing sources more efficiently to successfully restructure and

rebuild its economy. One solution may be to stop exporting coal, and to produce other forms of energy with the retained surplus. Another approach would be to seek alternative sources of oil and gas. Nuclear power was considered for a time, but public opposition following the Chernobyl disaster scuttled the project. Polish authorities have also discussed hydroelectric power with potential western joint-venture partners. Poland is already experiencing a severe shortage of hydroelectric power.

Western suppliers of energy-related technologies and equipment will find new opportunities opening up, particularly in the energy conservation sector. Poland has an energy consumption index 2-3 times that of the advanced industrialized countries, primarily owing to the inefficiency and inadequacy of its energy-saving techniques. As a result, the Polish government is offering incentives to encourage research and development in energy conservation.

Agriculture

Agriculture plays a significant role in the economy. In 1989, approximately 18.8 million hectares (60.1% of Poland's total area) was used for agricultural purposes. Another 8.9 million hectares or some 28.4% of the country's total area is forested.

Wheat, potatoes, sugar beets and fodder crops comprise the main agricultural output (see Figure 3.3). Poland is a world leader in the production of potatoes, and of fruits such as currants, raspberries, strawberries and apples. In addition, it has considerable technical experience in the management of orchards and the production of vegetable crops. Even so, many food processing facilities are antiquated, and this situation offers attractive opportunities to western investors, especially those equipped with the appropriate technology.

Unlike most other centrally planned economies, Poland's agricultural sector has remained largely in private hands. Private holdings far exceed state-owned and collective farms both in total area and employment (see Figure 3.4). Although private farmers were able to preserve their status, they did not prosper under the communist regime. A typical government tactic was to turn the terms of trade against agriculture in an attempt to draw additional resources into the industrial sector. Prices for agricultural products were thus kept low.

This policy undermined private agriculture, eliminated incentives to improve productivity and generally suppressed overall output. As a result, Poland has experienced continuous problems with food supply despite the fact that its land is fertile and well-suited to every type of agricultural production.

Figure 3.3
The Dimensions of Polish Agriculture

	1989	1990
Area Under Cultivation (m. hectares)	18.7	18.7
Wheat Harvested (m. tons)	8.5	9.0
Rye Harvested (m. tons)	6.2	6.1
Potatoes (m. tons)	34.4	36.3
Sugar Beets (m. tons)	14.4	16.7
Cattle (m. head)	10.7	10.0
Hogs (m. head)	18.8	19.5
Beef Produced (000 tons)	573.00	652.00
Pork Produced (m. tons)	1.498	1.498
Milk (billion litres)	15.9	15.4
Eggs (billion)	8.0	7.6

Source: Rocznik Statystyczny, 1991.