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POLAND: PERFORMANCE AND PROSPECTS IN TRADE WITH THE UNITED STATES AND THE WEST

A STUDY

PREPARED FOR THE USE OF THE

JOINT ECONOMIC COMMITTEE

CONGRESS OF THE UNITED STATES

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(CREATED PURSUANT TO SEC. 5(a) OF PUBLIC LAW 304, 79TH CONGRESS)

WASHINGTON, D.C. 20510

March 26, 1982

To the Members of the Joint Economic Committee:

I am pleased to send to you a study entitled "Poland: Performance and Prospects in Trade with the United States and the West." We are most grateful to Dr. Alan Lenz, Director, Office of Trade and Investments Analysis, International Trade Administration, U..S Department of Commerce, who conceived and directed the project. The analysis of the outlook for Polish trade with the West was prepared by Gary Teske, Office of East-West Policy and Planning, U.S. Department of Commerce. We are also very grateful for the assistance provided by Dr. John Hardt, Senior Specialist in Soviet Economics of the Congressional Research Service. Dr. Kent H. Hughes supervised the study for the Committee.

The study includes a description of the economic/policies that contributed to the current difficulties in Poland. It is one of several analyses of the Non-Market economies prepared in conjunction with the recently released JEC study "East-West Commercial Relations: A Dialogue with the Reagan Administration".

It should be understood that the views expressed in the study are those of the author and do not necessarily represent the views of the Joint Economic Committee or of its individual Members.

Sincerely,

Henry S. Reuss

Henry S. Reuss
Chairman

Congress of the United States

JOINT ECONOMIC COMMITTEE

(CREATED PURSUANT TO SEC. 5(a) OF PUBLIC LAW 304, 79TH CONGRESS)

WASHINGTON, D.C. 20510

March 22, 1982

Honorable Henry S. Reuss
Chairman
Joint Economic Committee
Congress of the United States
Washington, D.C. 20515

Dear Mr. Chairman:

I am pleased to send to you a study entitled "Poland: Performance and Prospects in Trade with the United States and the West." The analysis of the Polish prospects for East-West trade was prepared by Gary Teske, Office of East-West Policy and Planning, U.S. Department of Commerce. It is one of several studies that you requested in conjunction wtih your recently published, "East-West Commercial Relations: A Congressional Dialogue with the Reagan Administration." The study was supervised for the Committee by Dr. Kent H. Hughes.

All the views expressed herein represent those of the author and do not necessarily reflect the views of the Joint Economic Committee or any of its Members.

Sincerely,

James K. Galbraith

James K. Galbraith
Executive Director

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Poland: Performance and Prospects in Trade with the United States and the West

March 1982

Prepared by:

Gary Teske
Office of East-West Policy and Planning
U.S. Department of Commerce
Project No. D-01G-81

This East-West Trade Policy Staff Paper should not be construed as a statement of U.S. Department of Commerce policy. The research for this paper was completed before the imposition of martial law in Poland.

I. Summary

Poland's current economic problems stem from a development strategy launched in 1971 which simultaneously pursued rapid expansion in capital investment and consumption. The Gierek regime--which came to power in December 1970 after serious worker riots over food price hikes--believed that high rates of investment were needed to build up Poland's economic infrastructure, modernize existing production facilities, and develop a viable export sector. At the same time, significant increases were planned for the growth of personal incomes and consumer goods production to provide added incentives for projected increases in labor productivity.

To help modernize industry, Poland imported large amounts of Western goods and equipment, paid for largely by borrowings from Western governments and commercial banks. The expectation was that Polish exports, produced in new or modernized plants utilizing the most modern Western machinery and technology, would expand rapidly and permit repayment of the debt.

Initially, this strategy yielded impressive results. Imports from the West, paced by soaring purchases of manufactured goods, grew at $5 billion by 1975, more than six times the 1971 level. Poland's exports to the West also rose rapidly, increasing an average of 27 percent per year in 1972-75. Over the same period, Poland's national income increased briskly, accompanied by substantial increases in personal incomes and the standard of living.

Toward the mid and latter-1970s, however, it became clear that the strategy had misfired. Through mismanagement and bottlenecks in construction and supplies, start-up of newly purchased equipment and installations lagged way behind schedule reducing the availability of products for export. Poland's export performance was further hindered by a Western recession which slackened demand for traditional export products. On top of this Poland was required to make large hard currency imports of agricultural products, especially grains, to alleviate consumer unrest over meat shortages. Such shortages stemmed from harvest shortfalls and excessive demand caused by artifically low meat prices and above-plan increases in consumer income.

Before the imposition of martial law, Poland was seeking to extricate itself from its economic predicament with a combination of government and private debt reschedulings and economic reform. Debt reschedulings were needed to ease Poland's payments crunch while reforms were viewed as the best path to economic recovery. However, economic reforms and stabilization plans never got off the ground before martial law was imposed.

Since the imposition of martial law, Poland's economic problems have not vanished. In fact, they have been further compounded. Whereas in late 1981 there was some hope for labor peace and a return to "normal" levels of production, the imposition of martial law and suppression of Solidarity has complicated future labor

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relations. Martial law has not solved the regime's labor problems; it has only postponed the day when the government again will have to confront them.

Given Poland's domestic economic and foreign trade situations, as well as the uncertainties generated by current debt rescheduling negotiations, projection of Poland's overall hard currency trade by year-end 1985 is not easily made at this time. In addition, the sanctions imposed by the United States have increased uncertainties of Poland's trade with the West. Poland's hard currency imports during 1981-1985 will be highly dependent on two variables: its export earnings and the amount of Western credit financing received during the period. At this time, it is difficult to predict the levels of those variables.

Until the situation in Poland stabilizes and industrial bottlenecks are cleared up, it is impossible to predict 1981-85 production and the rate of export growth. Imports in the near term are expected to be limited to agricultural commodities, agricultural chemicals and equipment, and industrial spare parts. In the long term, if Poland is to continue to develop its major extractive industries (coal, copper and sulfur), markets likely will exist for mineral extraction, and materials handling and processing equipment. The government is also interested in forming joint ventures with Western firms in third countries, and in contracting out Polish engineering and construction services to Western partners in third countries.

Obtaining financing for hard currency imports will be Poland's major difficulty in the next few years. What Warsaw will be able to obtain from Western governments and commercial banks remains uncertain. Since the imposition of martial law, however, Poland's financial situation has become even more uncertain. The negotiations to reschedule Poland's 1981 repayments to Western commercial banks are still not complete. In addition, because of the imposition of martial law, Western Governments are expected to be less forthcoming with official assistance in 1982 and beyond. As a result, Warsaw will be hard pressed to maintain essential imports in its efforts to stimulate economic recovery.

While Poland's policy during the 1970s of heavy industrial investment financed by hard currency borrowings has left it with massive foreign debts, it has also left it with a basis to rebuild its shattered economy. The industrial capacity of the country, now partly idled by lack of spare parts and raw materials as well as labor strife, remains sizable. If present cash flow problems can be solved, the economy reformed, and labor peace reestablished, Poland has a chance to get its economy back on track. But, at this time, the outlook for the achievement of these prerequisites is bleak.

II. Poland's Objectives and Performance in Trade During 1971-81

A. Poland's Trade Objectives with the West

To analyze Poland's objectives in its trade with the West during 1971-81, Warsaw's overall development strategy during that period must be examined. Since the early 1970s, Poland's Government has tried to adhere to a development strategy that places emphasis on modernizing Poland's economy and boosting living standards, especially for urban workers. The Government believed that a "new" approach was imperative--Poland's economic growth was steadily falling behind that of the less developed East European countries which had begun modernization programs in the 1960s. The ensuing development strategy involved switching from an "intensive" pattern of development to an "extensive" pattern in which emphasis was placed on increasing output through increased capital and labor productivity, rather than through increased inputs of capital and labor. Such a shift was necessary because of a slowdown in the growth of labor migration from agriculture to industry, together with a precipitous drop in the growth of the labor participation ratio for women. In addition, the emphasis on heavy industry at the expense of consumer goods production during the Gomulka era of the late 1950s and 1960s resulted in serious shortages of consumer goods and a concomitant rise in consumer unrest.

In order to achieve the new policy, the Gierek regime--which came to power in late 1970 as a result of worker strikes and consumer violence over price hikes--realized that it had to maintain high rates of investment to build up Poland's neglected economic infrastructure, modernize existing production facilities, and develop a viable export sector. At the same time, in order to achieve the projected increases in labor productivity, the strategy assumed that workers had to be given added incentives to spur the growth of their output. To this end, significant increases were planned for the growth of personal incomes as well as in the quantity and quality of consumer goods. Finally, to ensure the effectiveness of each of the above policies, changes in the system of management and planning were undertaken.

To help modernize industry, restructure the economy, and improve worker productivity, the Poles believed that it was necessary to import large amounts of Western capital, technology, and consumer goods.[1/] To pay for these imports, the Poles realized that

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1/ As noted later, the bulk of consumer goods imports was mainly grains and feeds to support the growth of livestock inventories. Imports of Western manufactured consumer goods never were large and served mainly as a device--through the PEWEX stores--to siphon-off some of the population's large hard currency holdings. Nevertheless, such imports, albeit small, gave the appearance of "improved" living standards.

current hard currency earnings and reserves were insufficient and, therefore, significant long-term borrowings would have to be sought from Western creditors. Although the Poles expected these credits to sharply increase their hard currency debt, they believed repayment could be made with expanded exports of goods produced in the newly constructed plants. For that reason, the latest and most advanced technology was acquired. It was implicitly assumed by Polish planners that the output produced from the new imports would be easily saleable in Western markets.

As previously noted, an important element in Poland's development strategy was to develop a viable export sector--especially with respect to the markets of the Industrialized Western economies. To this end, Polish economists and planners believed it was necessary to diversify Poland's export structure through the development of new export industries. Development of such industries was to be broad and to parallel closely existing and expected demands in Western export markets. Consequently, Poland decided to invest heavily to develop and/or expand the following industries:

- Heavy machinery;
- Chemicals (especially PVC, fertilizers, pharmaceuticals, and synthetic fibers);
- Aircraft and aircraft components;
- Construction equipment (especially bulldozers, earth dumpers, and pipelaying tractors);
- Automobiles, trucks and tractors (including components);
- Household appliances;
- Shipbuilding; and
- Electronics.

The payoff in exports from these projects generally was not expected until the early part of the 1976-80 plan period. In some instances, however, the payoff was not anticipated until much later. For example, a 1972 agreement with the Austrians did not provide for Polish export of trucks, at the earliest, until 1980.

At the same time, planners envisaged that traditional export industries (such as those producing coal, copper, meat and meat products, clothing, and textiles) would continue to grow, with increasing quantities available for export to the I.W. In general, these industries were planned to receive additional investments in 1971-80. Imported Western capital equipment earmarked for the future development of these industries, however, was small compared to imports in other industries. Planners believed that investments of domestically produced/CMEA equipment would be sufficient to allow these industries to grow at a rapid rate. It also was assumed that the Western economies would absorb the increased exports of these goods.

The final element in the foreign trade segment of the development plan called for the expansion of import substitution industries such as steel, cement, pulp and paper, and copper and copper manufactures. Such an effort was deemed necessary to reduce substantial hard currency outlays on these items--items that were essential for the growth of a viable export sector.

The Gierek regime held steadfast to its foreign trade plan until late 1976, the first year of the new five-year plan. During that year, workers' riots took place in protest against proposed increases in the prices of basic foodstuffs. As a result, the Government was forced to adopt the so-called "new economic maneuvre"--a policy involving a switching of resources to export expansion as well as to curbing import growth. Priority was also given to agriculture, production of consumption goods for the domestic market, and housing construction. These priorities were to be achieved by a reduction of investment in other sectors, improved efficiency of investment, and elimination of waste. At the same time, in order to strengthen the new policy, measures were taken to insure greater production for export and for domestic consumption. The "new economic maneuvre" policies lasted until 1980 when Poland realized that policies once again would have to be readjusted to meet its pressing economic problems of the 1980s as well as to meet the demands of the Solidarity trade union movement.

B. Poland's Trade Performance with the West During 1971-81

1. Poland's Trade in Perspective

Before the Gierek regime took power in late 1970, Poland's trade was heavily oriented toward the CMEA countries. In 1970, almost two-thirds of Poland's total trade was with its communist country partners, while only one-fourth of its trade was with the Industrialized Western countries (see Table A-1). By 1974, however, the direction of Poland's trade had changed markedly because of Gierek's development strategy--only 46 percent of total trade was conducted with communist countries, while the developed country share had climbed to 45 percent. Due to the slowdown in the growth of Polish imports from the West in the late 1970s as well as higher CMEA energy prices, Poland's trade orientation by 1979 had swung back in favor of the CMEA countries. In 1981, 62% of Poland's total trade was with CMEA, while the I.W. share had dropped to less than one-third. One interesting trend over the period--reflecting, in part, Poland's trade problems--was that the share of Poland's exports going to the West has remained fairly stable at 28-30 percent between 1970 and 1981.

2. The Growing Trade Gap: 1972-75

As a result of this development strategy, Poland's trade surpluses of the 1960s and early 1970s turned to deficits by 1972 (see Table A-2). Imports, paced by soaring purchases of Western manufactured goods, grew to $5 billion by 1975--more than six times the 1971 level. Manufactured goods imports (SITC 7 and 8) rose from $261 million in 1971 to exceed $2.5 billion by 1975. Rapid increases in domestic demand, rising world prices, and some reductions in Soviet deliveries also led to sharp increases in imports of basic manufactured goods (mainly, iron and steel). Increased purchases of high priced Western grains and feedstuffs (SITC 0)--needed to expand livestock production--also contributed to the sharp rise in imports.

Poland's exports to the Industrialized West also rose rapidly in 1971-75--at an annual average rate of 26.7 percent--because of increased exports of coal, chemicals, foodstuffs, and light industrial products. However, more than 40 percent of the rise in export value represented higher export prices, rather than a significant expansion in volume. As a result of the faster growth in imports over the period, Poland ran a cumulative trade deficit of over $5 billion with the West.

3. Mounting Trade Problems and Revised Plans, 1976-79

As noted earlier, by 1976 Poland had to alter its economic plans in order to cope with its growing domestic and foreign trade problems. The leadership's reaction to the mounting trade problems in 1976 was to try to put a brake on the high level of imports from the Industrialized West and boost exports. Cutbacks were made in purchases of iron and steel, crude materials and machinery and equipment. The latter categories were difficult to curb, however, because Poland was still receiving Western equipment and machinery on orders placed during its 1972-75 buying binge. These cutbacks, however, were somewhat offset by large purchases of Western grain and feedstuffs that were needed to keep a lid on consumer dissatisfaction over food shortages as well as to boost feed supplies that were required to maintain livestock production. Warsaw had some success in reducing imports in 1977 but disastrous harvests during 1977-78 forced higher import levels in 1978 and 1979. Nevertheless, for the period as a whole, Warsaw was able to restrain import growth to a 3.5 percent average annual rate.

Poland had relatively good results in boosting exports in 1976-79, but the results were not good enough to close the existing large trade gap. Exports grew at a 10.2% average annual rate on the strength of surges in exports of manufactured goods. Because of the good export performance, Poland was able to reduce its hard currency trade deficit from $2.8 billion in 1976 to $1.3 billion in 1979.

4. 1980-81 Developments

Despite the major disruptions to the economy created by labor strife and emergence of the Solidarity trade union, , Poland was able to pare its trade deficit to $900 million. Imports held steady at 1979 levels while exports grew to $7.5 billion. The labor turmoil, however, did have an impact on exports. It is estimated that Poland lost over $400 million in export earnings during the second half of 1980 because of the labor strife and ensuing reduction of the work week in the mines. Decreased exports of copper, cement, and sugar also affected hard currency earnings. Despite the improved trade balance, burgeoning interest payments on the debt resulted in a nearly $3 billion current account deficit in 1980.

Poland's economy continued to founder in 1981. Industrial output and national income dropped by 13 percent to a position comparable to 1974 levels. This decline can be attributed to past errors in development policies, reduction in the work week (especially in the mining sector), social unrest, and strike actions. In addition, difficulties in obtaining fuels, raw materials, and other industrial inputs led to much idle production capacity. These negative economic developments impacted sharply on Poland's trade with the West in 1981. Exports to the West dropped 20 percent while imports fell by 30 percent. Although this caused the trade deficit to decrease to roughly $500 million, burgeoning interest payments on the debt resulted in a $3 billion current account deficit. The quality of exports and imports dropped in all categories except foodstuffs. Most noteworthy, however, was the steep drop in coal exports which fell from 31 million tons in 1980 to 15.2 million tons in 1981.

5. United States Trade with Poland

Since 1974, the U.S. has registered a substantial trade surplus with Poland each year (see Table A-3). In 1981, this surplus amounted to $315 million--an amount greater than the 1980 level of $294 million but less than the $360 million record achieved in 1979. Much of the growth in U.S. exports to Poland has been paced by brisk sales of grains and other agricultural commodities. Poland's continuing economic problems, however, caused a drop in U.S.-Polish trade in 1980 and 1981 from the record level achieved in 1979.

As a result of the imposition of martial law, the U.S. imposed the following economic sanctions on Poland on December 23, 1981:

- Suspension of Polish civil aviation privileges in the United States;
- A halt in the renewal of the Export-Import Bank's line of credit insurance to the Polish Government;

- Suspension of the right of Poland's fishing fleet to operate in American waters; and

- Proposal to our Allies for the further restriction of high-technology exports to Poland.

Under the sanctions,

1. LOT, the Polish airline, will no longer have landing privileges in the United States for its regular or chartered flights. A bilateral agreement governing civil aviation in the two countries will be allowed to expire on March 31, 1982. No U.S. airline currently services Poland.

2. The U.S. Export-Import Bank will not renew a $25 million line of credit insurance to support short-term (180 day) loans to Poland for suppliers and banks to pay for imports from the United States. Without such insurance, private lending to Poland to finance imports is unlikely because of Poland's financial condition. The line of credit expires November 30, 1981.

3. Poland will not be granted a portion of surplus U.S. fishery resources in the 200-mile fishing conservation zone in 1982. Poland's allocation for 1981 was 231,326 metric tons. The U.S. decision will have a substantial impact on Poland's overall fisheries, namely, a decline in the availability of fish in Poland and a hard-currency loss to the Polish Government from lost sales to traditional purchasers, among them, the United States.

4. The U.S. will discuss with the Allies and Japan tightening the way controls are applied to the export to Poland of advanced technology with strategic implications.

6. Analysis of Poland's Foreign Trade Problems

The obvious and simple reason for Poland's problems in its trade with the Industrialized West in the 1970s is that Polish imports grew faster than exports. But, this explanation begs further questions:

- Why did Polish officials allow imports to grow so much faster than exports, especially when it became apparent that original export plans would not be achieved?

- What factors inhibited Poland from achieving a high growth rate in exports to the I.W.? Were these factors beyond the control of the Government? were there conditions inherent in Poland's economy that worked against a rapid expansion and diversification of exports?

- Were supply constraints responsible for the inability to achieve export targets?

Answers to these questions indicate that the reasons for Poland's hard currency trade problems may be classified in one or more of the following categories:

- Factors beyond Warsaw's control;
- Policy mistakes made by Polish officials;
- Supply constraints; and
- Factors inherent in Poland's planning and management system.

a. Factors Beyond Warsaw's Control

The Western recession, beginning in late 1974, and its sluggish recovery sharply affected Poland's ability to increase its exports to the Industrialized Western countries. A main goal of Poland's development plan was to boost traditional exports and develop new markets in the Industrialized West for Polish exports of manufactured goods. However, the recession and its aftermath, not envisaged by Polish planners, made it very difficult for Poland to maintain its Western market share in traditional exports (e.g., coal), let alone open up new market opportunities in areas in which Poland previously had not competed (e.g., copper and manufactured goods).

In addition to the recession and sluggish world trade growth in the late 1970s, Western tariff and non-tariff barriers have restricted the expansion of Polish exports to the Industrialized West. Industrialized Western trade barriers--EC barriers, in particular--have been placed on Polish exports of clothing, textiles and yarn, chemicals, footwear, and some heavy-duty machinery. However, in the cases of clothing, textiles, and footwear, Poland still has been able to penetrate I.W. markets. Nevertheless, exports of these items have been substantially less than those envisioned by Polish planners. These plans, in many instances, probably were unrealistic at their inception, given the prevailing conditions in Industrialized Western markets for these commodities.

Poland also has had to face stiff competition for Western markets from newly developed industries in other East European countries and from members of the Organization of Petroleum Exporting Countries (OPEC). For example, this competition especially has been keen in trying to penetrate Industrialized Western markets for petrochemicals. During the 1972-75 period, Poland imported massive amounts of plant and equipment to build-up its petrochemical industry. With the surges in world oil prices since 1973, Polish planners scaled-down plans for the development of this industry. Nevertheless, with massive investments for the production of PVC, synthetic fibers, and plastics already made, Polish trade officials have tried to boost chemical exports to the Industrialized Western countries. Given the overcapacity of the chemical industries in the Industrialized West during the late 1970s and stiff competition from other East European and OPEC countries (which generally also decided to develop their petrochemical industries in the early 1970s), Poland has had little success in boosting the share of chemical exports in total exports to the Industrialized West.

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Finally, Poland's agricultural difficulties have caused serious problems for both exports and imports. It should be emphasized that Poland's agricultural problems do not stem entirely from weather-induced poor harvests. On the contrary, some would argue that Poland's problems stem primarily from Government agricultural and pricing policies. Nevertheless, poor weather has been a factor that has caused some of Poland's trade problems in agricultural products. As a result, Poland has had to curb meat exports, boost grain imports to record levels, and, in some years, import significant quantities of meat--all of which have had a damaging impact on Poland's ability to control its chronic trade deficits with the Industrialized West.

b. Government Policy Miscalculations

The Government compounded its trade problems with key policy decisions. With the onset of the Western recession, most Eastern European countries cutback on plans for imports from the Industrialized West, and, in some cases, on economic growth plans. But, the Polish Government, driven by the desire for rapid industrialization and the belief that domestic political stability was linked to further improvements in living standards, continued to push its ambitious development program. As a result, Polish imports of Western equipment and grain continued to surge. It was not until late 1976, in the face of mounting domestic economic and trade problems, that officials began trying to curb imports from the Industrialized West.

Government income, pricing, and agricultural policies also contributed to Poland's adverse trade problems. A rapid growth in workers' incomes and stable consumer prices have been key element in the Government's attempts to boost labor productivity. Government policies designed to boost meat consumption--at prices frozen at unrealistically low 1967 levels--have been disastrous. The rapid growth in incomes during the 1970s, along with a slower growth in supplies of attractive consumer goods and housing, have led to an excessive demand for meat and meat products. This excessive demand, largely since 1974, has resulted in chronic shortages of meat, accompanied by occasional outbreaks of consumer unrest.

In order to ensure "sufficient" meat supplies, the Government (as previously noted) has had to curb meat exports and boost grain imports. Policy changes that included a slow-down in wage growth along with gradual increases in meat and other food prices probably could have lessened the impact of Poland's agricultural problems on trade with the Industrialized West. Specifically, if the Government had altered its pricing and income policies, it probably could have avoided the sharp cuts in meat exports as well as lowered its grain import requirements--all of which would have contributed to more manageable trade deficits with the Industrialized West.

Some Polish economists now question the underlying assumptions about Poland's original policy to diversify its export structure--at the expense of traditional exports--in order to build a more viable

export sector. Most would agree, however, that Poland's export structure needed to be diversified, especially by increasing the share of manufactured exports to the Industrialized West. At the beginning of the development plan, Poland's export structure--biased heavily toward the export of primary products--was characteristic of an economy at a lesser stage of industrial development.

The problems with Poland's attempts to diversify exports are that planners have allowed too many projects to be undertaken and have not ensured that export diversification has been logically planned, especially in light of Poland's poor infrastructure development. Rather than concentrating on a few "new" export industries, planners apparently adopted a "shot-gun" view--the more, the better. As a result, many new export industries are foundering and have not been able to generate the expected exports to the Industrialized West.

At the same time, it may be pointed out that because of the diversification attempts, Poland has created an industrial structure that, while not generating large exports to the Industrialized West, remains dependent on increased inputs of Western materials. An example of this situation can be seen in the development and performance of Poland's automobile industry. The expansion and modernization of the industry is based wholly on West European equipment, technology, and licenses. Despite its start in the early 1970s, the industry continues to run deficits in its trade with the Industrialized West. Exports of passenger cars have leveled off at about 21,000 units despite 30 percent annual increases in production. At the same time, imports of auto parts are now about five times those of automobile exports.

Finally, Polish planners apparently lost sight of the need to make significant new investments in the infrastructure--investments that are essential if Poland is to have a viable industrial and export structure. As the Polish economy rapidly grew in the early and mid-1970s, increasing strains were placed on Poland's outdated internal transport system and electrical power generating facilities. This neglect has resulted in serious bottlenecks, especially in the transport of coal from southern Polish mines to northern seaports. Frequent electrical "brownouts" have caused the rationing of electricity for industrial (and residential use), which has resulted in lower industrial production, as well as creating more bottlenecks in the whole system of production. Significant, new investments finally are being undertaken in these areas, but considerable time will elapse before they can come on stream.

c. Supply Constraints

In some cases, Poland's problems in generating increased exports to the Industrialized West stem from insufficient quantities available for export. An explicit example is in the export of agricultural products. Poland probably could boost its exports of meat products (mainly canned hams) to the Industrialized West if only it could produce such items in sufficient quantities. Current agricultural problems, however, preclude such production. In addition, due to periodic domestic

coal shortages, Poland has had to divert coal earmarked for export to the domestic market. One could make the generalization that for any product Poland produces for export to the Industrialized West, there probably exists substantial--and unsatisfied--demand for that product in the domestic market.

In addition to general constraints on supplies available for export, Poland also lacks adequate marketing, servicing, and advertising expertise. Polish enterprises also face serious problems in supplying replacement parts. Officials are trying to boost efforts in these support areas, but it will take Poland a long time to build such supportive industries. Meanwhile, lack of such support definitely hampers Poland's ability to boost its exports of manufactured machinery (e.g., automobiles, metal-working and glass-working machinery, and household appliances) which have unrealized market potential in the West.

d. Planning and Management Limitations

In addition to the above constraints on the ability to boost exports, flaws in Poland's management and planning system have worked against the development of a viable export sector. Top Polish officials concede that they have not been able to set up a consistent system of export incentives to entice domestic firms to produce for export markets. They point out that the existing system favors production for the domestic market because it is much easier for managers to attain plan goals (and bonuses) by producing for domestic consumers rather than trying to meet export goals that are much more difficult to achieve. The establishment in the mid-1970s of a hard currency reserve fund for firms that meet or exceed export targets to the I.W. has been an insufficient incentive for boosting exports, according to officials, because the Government--due to the need to service its large hard currency debt--has not allowed firms to utilize such funds.

In addition, it appears that the Government lost control over wages, investments, and imports in the last half of the 1970s because of ineffective central planning. As a result, enterprises operated contrary to planning directives, overinvestment occurred in many industries, and wage increases were far above plan. All of these factors essentially exacerbated Poland's balance-of-payments situation.

III. Poland's Hard Currency Debt

Poland's development strategy caused it to experience a rapid rise in its hard currency debt between 1971-75 (see Table A-4). During that period Poland ran a cumulative trade deficit with the Industrialized West totalling $5 billion, while its net outstanding debt increased from $764 million to about $7.4 billion by yearend 1975. Polish planners realized that the hard currency debt would grow but they also believed that inflation was a permanent fixture in the world economy and, therefore, the real value of the accumulated debt would decline in the long-run.

By 1976 Poland realized that its development strategy was foundering. Efforts to slash Western purchases and boost exports met with limited success. Poland continued to run sizable deficits on its hard currency trade with the Industrialized West. From 1976 to yearend 1979 Poland accumulated an additional $5.9 billion in trade deficits. The need to finance these deficits, as well as the need to finance burgeoning debt service payments, forced Poland to borrow further and, thus, incur higher debt levels. Total net hard currency obligations to Western creditors grew from $7.4 billion at yearend 1975 to $19.6 billion at yearend 1979. Most recent Western loans to Poland have carried maturities considerably shorter than the terms on credits extended during 1972-75, thereby greatly aggravating Poland's debt servicing payments. By yearend 1979, Poland's debt service ratio approached 100 percent. By far, this was the highest ratio for any of the CMEA countries.

Over three-fourths of the growth in Poland's debt during 1971-79 resulted from borrowings from Western commercial banks. Warsaw has been the largest East European user of syndicated credits, raising more than $2.5 billion from this type of borrowing. Official and officially backed credits make up nearly one-fourth of Poland's gross debt. Poland's $5.1 billion in official debt at yearend 1979 consisted of $4.4 billion in government-backed export credits, $0.6 billion in West German government-to-government credits, and $150 million in outstanding PL-480 obligations to the U.S.

During 1980, Poland's debt rose further to an estimated $24.5 billion. As a result of this crushing debt and resulting debt-servicing payments (estimated to be $10 billion in 1980 alone), Poland has been forced to negotiate with its major Western creditors on debt relief. In April of 1981 Poland was able to reach agreement with 15 major Western government creditors to reschedule 90 percent of Polish principal and interest payments ($2.5 billion) coming due through 1981. Similarly, Poland reached an understanding with Western commercial banks in September 1981 on financial terms for rescheduling $2.4 billion in principal payments on unguaranteed debt due from April 1981. The final agreement with Western banks has yet to be signed.

IV. Poland's Hard Currency Trade Objectives and Strategy: 1981-85

A. Objectives and Constraining Factors

Before the imposition of martial law, Poland was currently seeking to extricate itself from its economic predicament with a combination of government and private debt reschedulings and economic reform. While the details of an economic stabilization program were never fully elaborated, key features would likely include:

- Reduced industrial investment, with emphasis on completion rather than initiation of projects.

- Reallocation of investments to those economic sectors that can generate quick hard currency export earnings.
- Continued curtailment of all but essential hard currency imports.
- Allocation of additional investments to agriculture, especially to the private sector (which accounts for three-fourths of total agricultural output).
- Improvement of incentives and supplies for private farmers.
- Institution of energy conservation measures.
- Realignment of the pricing structure.

Both the Polish Government and Solidarity were in agreement on the need for economic reform to get the country out of its crisis before the imposition of martial law, but disagreed on how best to implement it. The labor union realized the need for reduction of retail food price subsidization but wanted price rises to be concurrent with a complete overhaul of the economy.

With the imposition of martial law, the status of economic reform is unclear. General Jaruzelski has come out in favor of reforms. In addition, the Polish Parliament is supposed to act this session on the reform bills pending before it. Nevertheless, questions linger as to the commitment of the regime to meaningful economic reforms that will put the economy back on the road to recovery.

Poland's ability to deal with its economic situation is constrained by a number of factors. To achieve balance of payments equilibirum, Warsaw will have to curb further its Western imports and try to improve export performance. Cutbacks on its Western purchases, however, already have led to lower domestic production (including production earmarked for export). At the same time, efforts to increase exports may lead to further squeezes on domestic supplies. Moreover, continuing agricultural problems during 1981-85 will hamper Poland's ability to increase its foodstuffs exports. Finally, an attempt at reform will likely result in some damage to industrial production in the short-to-medium-term. Again, this could impact negatively on exports.

In addition to the above constraints, there is a great risk that Poland's worsening balance-of-payments situation has damaged Poland's ability to import from the West in 1981-85. This ability to import from the West is dependent on continuation of credit financing of its imports and a continued expansion of Poland's hard currency indebtedness. However, given that Poland has almost completed a formal multilateral debt rescheduling for 1981, Warsaw's capacity to maintain credit flows to finance essential imports invariably will be sharply reduced. This situation will persist until some measure of creditor confidence is restored--a process that may take many months and even years.

The reduction in Western credits already has forced Warsaw to import most of its needed supplies on a cash-only basis. Thus, Poland's hard currency trade accounts basically will be forced into balance via sharp, painful cuts in purchases of vital goods. The resulting disruption of Poland's economy in the form of shortages of raw materials for industry could lead to a further slowdowns in industry. In turn, such a development could lead to an intensification of the present domestic economic and political turmoil.

B. Import Needs from the Industrialized West, 1981-85

Tables A-5 through A-8 detail the composition of Poland's imports from the 17 major Industrialized Western (I.W.) countries for 1974-79. The percentage trade shares of each of these countries are listed in Table A-9. Imports from these countries accounted for 68.5 percent of total Polish hard currency imports in 1979.

Total imports from the Industrialized West grew at an average annual rate of 5.4 percent during 1974-79 (compared with a 12.2 percent annual growth in exports to these countries during the same period). In the case of Poland, the use of the 1974-79 time frame obscures the actual trend in Polish import growth because of the slowdown in growth--only 2.8 percent per annum--during 1976-79 (and the 9 percent absolute decline in imports in 1977 over 1976 levels). A more accurate description of Poland's Western buying binge is reflected by the 44.8 percent average annual growth in imports during 1972 (the initial year of Poland's modernization program) and 1976 (when Poland applied the brake on import growth).

Most of Poland's imports from the I.W. during the 1970s were comprised of foodstuffs and semi-finished and finished manufactures. In 1979, basic industrial goods (SITC 6) and machinery and transport equipment accounted for more than one-half (52.7 percent) of total Polish imports from the Industrialized West. Foodstuffs accounted for another 10.5 percent.

An examination of Poland's hard currency import needs by commodity category for the 1981-85 period follows.

Foodstuffs (SITC 0, 1, 4) have been the fastest growing import category since 1974, increasing at an average of 23.7 percent each year during 1974-79. As a result, the share of this category in Poland's total imports from the Industrialized West grew from 9 percent in 1974 to 20.5 percent in 1979. The growth of this item reflects Poland's poor agricultural performance during the period as well as government policies to cover agricultural shortfalls with costly imports. Major imports in this category have included wheat, corn, soybeans and soybean oilcake, and grain sorghums. A list of the top import items is given in Table A-7.

During 1981-85, Poland probably will need to continue its costly grain imports in order to maintain (and expand) livestock production for domestic consumption and for export. With annual grain

requirements probably continuing to average roughly 27 million tons in the near term, Poland will need to import about 5 million tons or curtail its livestock expansion program. Agricultural imports, however, could decline towards the end of the 1981-85 period if Polish leaders vigorously pursue stated stabilization policies that (a) boost the flow of industrially produced materials and investment goods to private farms and (b) promote profitability in the private farm sector. In addition, more favorable weather in 1981-85 (as compared to weather conditions in 1976-80) should stimulate agricultural output. Even with improved availability of agricultural supplies and favorable weather, the Government must overcome the peasants' skepticism and persuade them to voluntarily invest more in their farms. In addition, the farm sector needs upgraded infrastructure that is costly to develop and would probably force the Government to reallocate industrial investment funds.

Crude Materials (SITC 2) accounted for 7.4 percent of Poland's imports from the Industrialized West in 1979, and consisted primarily of textile fibers, oil-seeds, pulp and waste paper, and crude fertilizers. Since most of these items are used in the consumer goods and building materials industries (and generally not in export-oriented industries), imports of these items will probably stagnate or even decline if Poland has to sharply curb its Western imports.

Mineral Fuels (SITC 3), consisting almost totally of lubricating oils, greases, and preparations, amounted to less than one percent of total imports from the Industrialized West in 1979. Since Poland satisfies much of its energy needs from its vast coal resources (and imports the bulk of its oil from the Soviet Union), imports of mineral fuels from the Industrialized West are likely to be maintained at 1976-80 levels.

Chemicals (SITC 5) represent Poland's second fastest growing import category in 1974-79, increasing at an 11.5 percent average annual rate. Imports consist mainly of chemical compounds, plastics, dyes, and pharmaceuticals.

In 1981-85, emphasis in the chemical industry will be placed on expanding production of pharmaceuticals, paints and varnishes, cosmetics, herbicides, plastics, and rubber products (tires, in particular). As a result, Poland will have to continue importing large quantities of chemicals to support the expansion of production in these areas. Dyes will continue to be a major import item, given the importance of clothing as a hard currency earner.

Basic Industrial Goods (SITC 6) accounted for 24.5 percent of Poland's imports from the Industrialized West in 1979 and consisted primarily of iron and steel, textile fibers and yarn, paper, and metal manufactures. Iron and steel imports alone accounted for 10.7 percent of Poland's total imports from the Industrialized West in 1979.

Slower economic growth during the 1981-85 period may dampen Poland's demand for imports of basic manufactures. The continued development of import substitution industries in this area also may lead to reduced demand. Finally, increased shipments of basic

manufactures from CMEA countries also may allow Poland to reduce its Western purchases. Warsaw probably will try to continue to limit its iron and steel imports. Since reaching a peak of $855 million--16 percent of total imports from the Industrialized West--in 1975, Warsaw was able to reduce such imports in 1976-78. In 1979, however, iron and steel imports rose by 12 percent over 1978 levels. Despite this surge, Warsaw is expected to try to keep these imports down.

Past trends in the imports of textile fibers should continue as clothing/textiles are a large hard currency earner. In addition, as Poland expands its automobile industry (for domestic production and export), imports of crude rubber probably will increase.

Machinery and Transport Equipment (SITC 7) is the largest import category, accbunting for 28.2 percent of total imports in 1979. The bulk of imports in this category is comprised of electrical and nonelectrical machinery. The share of machinery and transport equipment in total imports has fallen since 1975, when that share reached 40 percent. The drop is attributable to Poland's efforts to hold down imports from the West.

Poland's stabilization plan--once announced--probably will call for a reduction in these imports in 1981-85. Indeed, Poland could substantially reduce its trade deficit by slashing its purchases of machinery not related to export production. Since emphasis is expected to be placed on the completion of investments rather than on undertaking new projects, Poland should be able to substantially reduce its purchases of Western machinery without having a major impact on economic performance during 1981-85..

Miscellaneous Manufactured Goods (SITC 8) accounted for only 2.9 percent of Polish imports from the Industrialized West in 1979. The major import items in this category are scientific measuring and controlling instruments and optical equipment. Instrumentation comprised about 42 percent of total miscellaneous manufactured goods imports. Given Poland's need to upgrade the quality of its manufactured goods exports, Poland is expected to continue to need such equipment during 1981-85.

Table A-8 indicates the origins of the five leading Polish imports from the Industrialized West. In four--nonelectrical machinery, iron and steel, chemical elements, and electrical machinery--of the five categories, the FRG is by far the leading supplier, representing around 30 percent of total Industrialized Western exports to Poland in those categories. The U.K. and France are also leading suppliers overall. Only in one category is the U.S. the major supplier with 46 percent of the market in 1979--cereals and cereal preparations. It is expected that the FRG, U.K., France, and U.S. will maintain their roles as leading Industrialized Western exporters in these categories throughout 1981-85.

V. Poland's Hard Currency Export Capabilities, 1981-85

A. Composition of Recent Exports to the Industrialized West

As indicated in Table A-10 Poland's exports to the Industrialized West increased at an average annual rate of 12.2 percent over the 1974-79 period. The bulk of Poland's exports--about three-fifths--to the Industrialized West went to the EC countries (see Table A-12). In fact, the share of Poland's exports directed towards the EC rose from 65 percent in 1974 to 68.5 percent in 1979. The U.S. share fluctuated over the period, ranging from 8.2 to 11.8 percent of the total.

Tables A-10 and A-11 provide insights into Poland's export patterns during the 1974-79 period. The following observations can be made:

- The share of primary products (SITC 0-4) in total exports fell sharply, dropping from 60.8 percent in 1974 to 52.1 percent in 1979. This reflects the sharp decline in exports of meat and other food products, as well as the stagnation in exports of coal. Nevertheless, coal (SITC 3214) remained the dominant export item over the period.

- As the share of primary products has fallen, the share of manufactured exports (SITC 7-8) increased sharply, rising from 15.9 prcent of the total in 1974 to 23.9 percent in 1979. At the same time, the share of exports of intermediate products (SITC 5-6) has increased slightly, rising from 22.3 percent of the total in 1974 to 22.8 percent in 1979. To some extent, this trend reflects Poland's development strategy to diversify exports, especially exports of manufactured goods.

- The top five export items at the 5-digit SITC level still account for about one-third of total Polish exports to the I.W. This indicates that Poland's exports have been concentrated in relatively few items. The top 25 items, likewise, roughly provide about three-fifths of Poland's earnings.

- Since 1974, the composition of Poland's top five has changed slightly. The most noticeable difference is the sharp rise in exports of copper (SITC 68212), which have risen sharply as a result of Warsaw's efforts to tap its large copper deposits.

- The composition of the top thirty exports also has been quite stable. Noticeable gainers between 1974 and 1979 were exports of basic iron and steel products (SITC 6740 and 67251), automobiles (SITC 7321), internal combustion engines (SITC 7115), gasoline (SITC 3321), and furniture (SITC 82109 and 82101). Significant losers--in relative terms--have been bacon (SITC 01221), and horse meat (SITC

0115). The latter losses reflect Poland's severe agricultural problems and the European Community's (EC) ban on imports of meat products and live animals from non-EC members.

B. Future Prospects

As previously noted, Poland has had some success in boosting exports to the I.W., but greater success will be needed in 1981-85. The previous analysis highlighted the difficulties Poland faced in diversifying its exports, while increasing such traditional exports as coal, copper, and foodstuffs. The following will examine Poland's export capabilities during the forthcoming 1981-85 plan period.

To date, Poland has not released specific details on its foreign trade plans for the 1980s because of the continuing uncertain economic situation. Nevertheless, one major objective will be to boost exports to the Industrialized West by as much as possible. In addition, one can infer on the basis of past policies and on the fact that changes in a country's export structure evolve slowly what Poland's major export categories will be during 1981-85.

In general, Poland's prospects are not bright for realizing substantial expansion in hard currency earnings. Problems that thwarted Polish plans during the 1970s will remain, while new unforseen problems may arise. Whereas Poland launched its massive development program during an "upswing" in Western economic activity, it must now try to achieve goals--that it couldn't achieve in the 1970s--during a period of uncertain economic activity in the Industrialized Western countries. OECD forecasts for growth of the Industrialized West countries in the 1980s are less than optimistic. Western economic prosperity will, therefore, play an important role in determining Poland's ability to boost its exports. In addition, greater protectionism in the Industrialized West would hinder Polish attempts to increase its exports.

An examination of Poland's export capabilities by commodity grouping follows:

Mineral Fuels

Mineral fuels, especially coal, will be an important export earner for Poland in 1981-85. Poland is the fourth largest coal producer in the world, and the second largest coal exporter; half of Poland's coal shipments go to hard currency countries. Coal is not only the key domestic energy resource (accounting for three-fourths of energy needs), but also the primary hard currency earning commodity. The importance of coal as an export commodity rests on Poland's vast reserves, whose development has been steadily maintined and will likely continue to be so in the future. Polish coal technology is also advanced, a factor which has figured favorably in coal development efforts.

Poland's labor strife has hit the coal industry hard by lowering the length of the work week as well as by reducing labor productivity. Whereas Polish coal output reached a record 201 million tons in 1979, output in 1981 may only reach 160-165 million tons. Given Polish domestic energy requirements of almost 150-160 million tons of coal per annum, Polish coal exports may be as low as 15 million tons in 1981--compared to 41 million tons in 1979. Moreover, because of changes created by the new labor agreements, some Polish economists do not envision Polish coal production reaching 200 million tons again until 1985. Thus, at least for 1981-85, Polish coal exports may be at levels substantially below those of the 1970s unless the Government implements policies getting workers back into the mines. However, there are no guarantees that even then, Poland will be able to reach planned coal production levels.

Foodstuffs

Meat and meat preparations (SITC 01), Poland's second largest export group, accounted for 7.9 percent of exports to the Industrialized West in 1979--substantially down from its 13.6 percent share in 1972. As noted earlier, Poland's agricultural and pricing problems, which have led to considerable consumer unrest over chronic meat shortages, forced the Government to restrict such exports in the late 1970s.

Looking at Polish agricultural developments in the late 1970s, prospects appear pessimistic for the future growth of meat exports. One of the primary objectives of the Government over the next several years will be to satisfy consumer demands for basic products. Certainly, meat is the foremost among the basics. Livestock numbers and meat production still have not reached peak 1974 levels and, given favorable agricultural conditions and policies, it will take at least two to three years to regenerate supplies to what may only be approaching adequate levels. Admittedly the Poles are as much hard pressed to earn hard currency as they are to satisfy consumer demands. Therefore, the choice between meat allocation for export versus domestic consumption will be difficult, with the probable result that meat exports, if they do increase, will do so modestly.

Machinery and Transport

An examination of Poland's manufactured exports is particularly interesting because it involves a look at some commodities that have been exported only recently. The development of new items for export reflects an effort to adjust the commodity composition of Poland's exports. As previously noted, during the 1971-75 Five-Year Plan, Poland adopted a deliberate policy of modernizing its manufacturing base through massive imports of Western plant, equipment, and technology. This effort, combined with the continuing development of traditional manufactured goods, was aimed at enabling Poland to significantly expand exports of manufactures beginning in the second half of the seventies.

Among manufactures, Poland's 1979 major hard currency earning groups were transport equipment (SITC 73), clothing (SITC 84), and power generating machinery (SITC 72). These three groups together accounted for almost three-fourths of hard currency earnings from finished manufactured goods exports to the Industrialized West in 1979.

The largest manufactured group exported, and one which exhibited the fastest growth over the period was transport equipment (SITC 73). Exports of ships (SITC 7353) accounted for most of this increase. Over 90 percent of hard currency earned by commodities in this sector came from exports of ships. Since 1972, earnings from ships have increased more than five-fold to reach nearly $300 million in 1979.

At a time when traditional Western shipbuilders are suffering from lack of orders, demand for Polish ships will keep Poland's ship yards booked with orders until the early 1980s. It appears that price competitiveness, along with advanced shipbuilding technology, has enabled Poland to weather the global slump in shipbuilding industries. Poland's shipyards are highly export oriented with over 90 percent of production covered by global exports. As a result, hard currency exports from ships are likely to continue the upward trend of recent years.

Passenger cars (SITC 7321), the other significant item in the transport group, expanded earnings substantially during the 1970s. Poland has planned to significantly expand its automobile exports to the West, based on sales of the "Polski-Fiat," manufactured under license from the Italian Fiat concern. Half of all production is to be exported overseas in the future, with the United States, Great Britain, Canada, and Ireland as major targets. Passenger car exports may show significant improvement in the 1980s if Poland is successful in its drive to expand motor vehicle production. Domestic demand, however, has been increasing sharply, and it may very well be that a good deal of increased car production will have to be turned into the home market. In addition, to effectively exploit the Western market in this area, Poland will have to upgrade its production quality, delivery times, supply of spare parts, and after-sales servicing.

Future expansion in hard currency earnings from clothing exports (SITC 84) will probaly be constrained by Western import restriction measures. Textile agreements, outlining quotas on clothing imports, have been negotiated with the United States in early 1978 and a preliminary agreement is in effect with the EC. The EC agreement has allowed for about a four percent annual increase in clothing item exports through 1981. Future growth rates (1981-85) are expected to remain low. This limited growth rate could, however, be revised slightly upward if Poland can successfully negotiate bilateral agreements, e.g., with West Germany, that allow for more rapid increases. To the extent that Western import barriers remain in effect, which they are likely to do for some time, Poland's hard currency earnings from clothing exports are not likely to achieve a very dynamic growth.

Export earnings from nonelectric machinery (SITC 72) are likely to improve in the early 1980s as exports under earlier buyback agreements come on stream. Deliveries of tractors from a Massey-Ferguson deal were scheduled to begin in 1978, and these may boost exchange earnings in the future. Overall, however, it seems that the most promising growth, in the near term, for finished manufactured products will come in ships. Exports of clothing, some other light industry products (e.g. sports equipment), tractors, passenger cars, machine tools, and internal combustion engines will probably advance at more moderate rates.

A further word of caution should be noted about Poland's ability to boost exports of manufactured goods to the I.W. in 1981-85. When most of the "new" production is available for export, it will represent technology that is five to 10 years old. Moreover, it will have to penetrate markets that are already well supplied. A survey of technology transfers to CMEA countries, including Poland, from West German firms shows that 50 percent of the coproduction deals involved goods that already face saturated I.W. markets and another 44 percent involved goods that are moving in that direction.

Basic Industrial Goods

Poland's exports of basic manufactures will continue to be dominated by nonferrous metals and iron and steel exports. Nonferrous metal exports (SITC 68) to the I.W. have consisted primarily of exports of copper, silver, and zinc. It is notable that nonferrous metal earnings have risen substantially despite continuing sluggish I.W. markets for the metals comprising that group.

Copper, which is the largest component of the nonferrous aggregation, has in recent years been one of Poland's most important hard currency earners among individual non-ferrous commodities. Over 50 percent of Polish nonferrous metal exports to the I.W. have been copper. Poland is said to possess Europe's largest copper reserves, and to develop these deposits, an extensive modernization scheme has been underway. Poland has sought Western help, primarily in terms of credits tied specifically to development of copper. It is clear that the Poles are committed to expanding their copper capacity, an effort which may very well pay off in the 1980s if, as some expect, Western demand and prices rise significantly.

For the near term, Polish copper exports will probably continue to increase moderately, as will earnings, despite persistent problems in demand and price. As with coal, copper exports are laid out largely through long-term contracts. For example, in 1975 Poland agreed to delivery 25 thousand tons per annum to France for the next fifteen years. In 1976 Poland signed a deal with West Germany to delivery 40 thousand tons/annum for the next twelve years. There is some indication that Italy is interested in negotiating for 50 thousand/tons/annum in return for aid in copper development.

In addition to improved copper exports, zinc and silver exports should also be rising. If Western economies rebound from the depressed levels of the late 1970s, exports of these commodities will undoubtedly register improved performance. Nevertheless, the value of these exports will be greatly influenced by Western price

movements--which, at times can be volatile. For nonferrous metals exports on the whole, therefore, the near term prospects indicate a moderate expansion which could be significantly improved with better economic performance in the West.

Chemicals and Sulfur

Polish planners expect significant increases in exports of chemicals to the I.W. in the 1980s. Poland specifically plans to boost exports of sulfur and sulfuric acid, soda, nitrogen fertilizers, polyvinyl chloride (PVC), and synthetic fibers. Presently, Poland is the largest world exporter of sulfur, exporting over 70 percent of production. Almost half of these exports go to hard currency countries. Continued development of the Tarnobrzeg sulfur basin will enable Poland to continue expanding its exports. It appears that earnings from such exports will rise in the 1980s, so long as there exists sufficient world demand.

Polish chemical exports could expand rapidly in the 1980s, depending on world demand. Large investment made earlier in the chemical industry is just now beginning to be realized in the expansion of output. A $700 million heavy soda plant, constructed by a French-German consortium, came on stream in 1977-78 and has allowed for greater exports of caustic soda. Nitrogen fertilizer exports could increase in 1980-85 because an ammonia fertilizer complex was completed in 1980 under a $400 million agreement with Creusot-Loire of France. In addition, chemical earnings may also be boosted as a result of a commodity payback agreement signed in 1975 with British Petrocarbon Developments, Ltd. The $450 million deal calls for the annual export--scheduled to begin in 1980--of almost $125 million in PVC.

VI. Poland's Hard Currency Trade and Debt Outlook, 1981-85

Given Poland's uncertain domestic economic and foreign trade situation as well as the uncertainties generated by current debt rescheduling negotiations, projections of Poland's overall hard currency trade and debt situation by yearend 1985 are not feasible at this time. Poland's hard currency imports during 1981-85 will be highly dependent on two variables: its export earnings and the amount of Western credit financing received during the period. To date, these two variables are unknown.

On the export side, Poland's exports to the West are uncertain until the economy is stabilized and can begin operating at near "normal". Assuming that Warsaw can get its economy back on track, one could expect Poland's hard currency exports to grow by 12 to 15 percent per year. But at this time, it is difficult to predict what will happen on that front.

On the financing side, it is difficult to project what Poland will be able to obtain. Since the imposition of martial law, Poland's financial situation has deteriorated even further. Warsaw still has not been able to reach agreement with Western commercial banks on a rescheduling accord for its 1981 debts. Moreover, Warsaw soon must begin negotiations with Western banks and governments on a rescheduling of its 1982 debt-service payments. Such payments may resch the 1981 levels of $10 billion and negotiations to reschedule this amount at best will be difficult.

Thus, the bottom line may be that throughout 1981-85, Poland will be forced to conduct its trade on a cash-only basis, i.e., import levels could not be more than export earnings. Access to official Western credits, however, would allow Poland to increase its import capacity and, therefore, stave off severe economic disruptions. Needless to say, by 1985, Poland's hard currency debt will be substantially higher than the $26 billion recorded at yearend 1981 if, as many observers predict, Warsaw is forced to reschedule its debt each year during 1981-85 and try to obtain new credits to cover its interest obligations.

VII. U.S.-Polish Trade Potential, 1981-85

U.S.-Polish trade basically was normalized in 1960 when the U.S. restored MFN status to Poland. In 1972, Poland became eligible to participate in programs of the Eximbank and Commodity Credit Corporation. In addition, unlike Hungary, Romania, and the PRC, Poland's MFN status is not subject to the Jackson-Vanik provisions of the Trade Act of 1974 requiring that Congress annually reconsider whether or not the country in question meets the requirements for MFN. Thus, before the imposition of U.S. sanctions, U.S.-Polish economic relations were the most fully normalized of all the communist countries. The imposition of sanctions coupled with Poland's dismal economic situation make the outlook for U.S.-Polish trade bleak.

A. U.S. Exports to Poland

U.S. exports to Poland have traditionally been dominated by agricultural commodities. In 1980, agricultural commodities, chiefly corn and soybean oil and cake, represented two-third of total U.S. exports to Poland. In the first three quarters of 1981, this share had risen to 78 percent of total exports to Poland. The high share of agricultural products in total U.S. exports to Poland reflects poor Polish harvests over the last five years as well as Government efforts to boost meat production.

U.S. exports to Poland during 1981-85 will be highly dependent on the availability of financing, both official and private. Availability will be especially crucial in the area of agricultural exports. In the past, the CCC program has allowed Poland to finance the bulk of its U.S. grain purchases. Such financing in the future, however, is now unavailable to Poland as a result of the U.S. sanctions.

To the extent that Poland can get its economy back on track, the best opportunities for American business in 1981-85 are seen in sales of fertilizers, agricultural chemicals and machinery, as well as grain storage and food processing equipment. If Poland is to continue developing its coal, copper, sulfur, and other extractive industries, there will probably exist markets for mineral extraction and processing equipment and related machinery. The ship building industry, since it is a large hard currency earner, will continue to receive investment funding. In addition, commercial arrangements featuring buy-back or repayment in industrial goods, as well as joint ventures in third countries, will likely be encouraged.

B. U.S. Imports from Poland

Traditionally, U.S. imports from Poland have been dominated by manufactured goods, which have accounted for 50 to 60 percent of total U.S. imports. The leading manufactured goods imports have been drilling, milling, and boring machines, clothing and fabrics, iron and steel plates, and iron and steel nails, screws, bolts, etc.

Agricultural imports account for almost 40 percent of U.S. imports from Poland. Canned hams and other pork products are the most significant items in U.S. agricultural imports. In 1980, imports of these products accounted for 90 percent of U.S. agricultural imports and one-third of total U.S. imports from Poland. U.S. imports of these commodities, however, were 6 percent lower in 1980 over the 1979 level. The lower level of ham/pork product imports resulted from Polish supply constraints rather than reduced U.S. demand. As noted earlier, Poland's dismal agricultural performances during 1976-80 and the need to ease domestic meat shortages have forced the government to limit such exports.

U.S. imports from Poland during 1981-85 will be greatly affected by the supplies of Polish goods available for export--industrial as well as agricultural goods. Lower industrial production may limit supplies available to the U.S. and other hard currency markets, although Poland will try very hard to maintain such exports. In the case of agricultural products, Poland faces severe domestic meat shortages which may continue to limit supplies available for export. In addition, feed shortages have led to reductions in hog inventories, implying that 1981 pork production is expected to be significantly below the 1980 level. These reductions could mean that Poland, which sent 96 percnet of its total 1980 exports of canned hams and shoulders to the U.S., may have to reduce deliveries of those commodities in at least the 1981-82 period.

TABLE A-1

Poland: Foreign Trade by Major Trading Groups, 1960-79
(Millions of U.S. Dollars)

	1960	% of Total	1970	% of Total	1974	% of Total	1978	% of Total	1979	% of Total	1980	% of Total 1/
IMPORTS of which	1,495	100.0	3,608	100.0	10,429	100.0	16,513	100.0	18,078	100.0	19,123	100.0
USSR	465	31.1	1,361	37.7	2,323	22.3	5,036	30.5	5,829	32.2	6,628	34.7
East Europe	400	26.8	1,000	27.7	2,016	19.3	3,549	21.5	3,889	21.5	3,903	20.4
Developed Countries	447	29.9	938	26.0	5,335	51.2	6,531	39.6	6,631	36.7	6,446	33.7
Less Developed Countries	99	6.6	196	5.4	495	4.7	861	5.2	1,347	7.5	1,654	11.2
EXPORTS of which:	1,326	100.0	3,548	100.0	8,260	100.0	14,527	100.0	16,846	100.0	16,938	100.0
USSR	390	29.4	1,251	35.3	2,341	28.3	5,006	34.5	6,078	36.1	5,612	33.1
East Europe	335	25.3	882	24.9	1,985	24.0	3,384	23.3	3,743	22.2	3,790	22.4
Developed Countries	403	30.4	1,024	28.9	3,042	36.8	4,425	30.5	5,043	29.9	5,792	34.2
Less Developed Countries	93	7.0	258	7.3	641	7.8	1,073	7.4	1,310	7.8	1,154	10.3

1/ Preliminary

Source: CIA, Handbook of Economic Statistics, (ER 80-452), October 1980, Preliminary data for 1981 furnished by the CIA.

TABLE A-2

Poland: Hard Currency Trade, 1970-79[1/]
(Millions of U.S. Dollars)

	1970	1974	1975	1976	1977	1978	1979	Average Annual Growth Rate 1974-1979
IMPORTS	1,247	6,090	7,104	7,544	7,411	7,928	8,360	6.5
EXPORTS	1,415	3,934	4,477	4,771	5,293	6,137	7,025	12.3
TRADE TURNOVER	2,662	10,024	11,581	12,315	12,704	14,065	15,385	8.9
BALANCE	+ 168	- 2,156	- 2,627	- 2,773	- 2,118	- 1,791	- 1,335	-

1/ Includes Developed and Less Developed Countries

Source: CIA, Handbook of Economic Statistics, (ER 80-452), October 1980.

Table A-3

U.S.-Polish Trade
(Millions of U.S. Dollars)

	1974	1979	1980	1981
U.S. EXPORTS	394.6	786.3	710.5	680.6
of which:				
Agricultural.....	253.3	651.4	571.5	592.9
Manufactured.....	131.7	104.8	94.4	59.1
Other.....	9.6	30.1	44.6	28.6
U.S. IMPORTS	265.9	426.5	416.7	365.1
of which:				
Agricultural.....	88.4	165.0	154.0	109.7
Manufactured.....	168.3	230.4	240.5	241.8
Other.....	9.2	31.1	22.2	13.6
TRADE TURNOVER.....	660.5	1,212.8	1,127.2	1,045.7
BALANCE.....	+128.7	+359.8	+293.7	+315.4

Source: U.S. Census Bureau magnetic tapes.

Table A-4

Poland: Hard Currency Debt
(Millions of U.S. Dollars)

	1971	1978	1979	1980
Commercial Debt.....	420	14,000	16,500	14,800
of which:				
Owed to U.S. banks.....	N/A	1,315	1,515	1,274
Officially-Backed Debt.....	718	4,200	4,800	10,100
Gross Debt.....	1,138	18,200	21,300	25,000
(Commercial Assets).....	(374)	(900)	(1,100)	(1,000)
Net Debt.....	764	17,300	20,200	24,000

Source: U.S. Government

TABLE A-5

Poland's Trade With the Industrialized West (I.W.), 1974-79
(Millions of U.S. Dollars)

	1974	1975	1976	1977	1978	1979
IMPORTS FROM I.W.	4,395.9	5,266.1	5,261.0	4,750.0	5,314.7	5,726.0
U.S.	394.6	580.0	621.0	436.5	677.1	786.3
U.S. Share (%)	9.0	11.0	11.8	9.1	12.7	13.7
EC	2,922.1	3,264.2	3,160.0	2,904.8	3,198.8	3,395.2
EC Share (%)	66.5	62.0	60.1	60.8	60.2	59.3
of which:						
Foodstuffs 1/	405.5	590.9	821.5	552.5	927.9	1,176.1
U.S.	189.4	317.0	444.9	266.5	435.9	551.2
U.S. Share (%)	46.7	53.6	54.2	48.2	47.0	46.9
EC	127.0	142.6	192.0	124.1	272.0	385.9
EC Share (%)	31.3	24.1	23.4	22.5	29.3	32.8
Manufactured 2/	3,634.4	4,275.0	4,095.3	3,856.4	3,943.5	4,027.8
U.S.	131.7	180.5	123.9	114.2	141.6	104.8
U.S. Share (%)	3.6	4.2	3.0	3.0	3.6	2.6
EC	2,648.7	2,982.3	2,830.7	2,742.7	2,762.3	2,813.4
EC Share (%)	72.9	69.8	69.1	71.1	70.0	69.8
o High Technology	502.9	601.6	633.2	628.7	682.0	636.0
U.S.	24.2	39.4	39.6	38.9	54.2	27.5
U.S. Share (%)	4.8	6.5	6.3	6.2	7.9	4.3
EC	357.0	414.5	414.6	396.4	446.7	430.1
EC Share (%)	71.0	68.9	65.5	63.1	65.5	67.6
EXPORTS TO I.W.	2,681.3	2,958.7	3,389.9	3,604.5	4,076.9	4,759.4
U.S.	265.9	243.1	318.8	329.0	438.9	426.5
U.S. Share (%)	9.9	8.2	9.4	9.1	10.8	9.0
EC	1,753.5	1,974.3	2,210.4	2,355.8	2,785.1	3,260.3
EC Share (%)	65.4	66.7	65.2	65.4	68.3	68.5
TRADE TURNOVER WITH I.W.	7,077.2	8,224.8	8,650.9	8,384.5	9,391.6	10,485.4
BALANCE	-1,714.6	-2,307.4	-1,871.1	-1,175.5	-1,237.8	-966.6
o Bal. with U.S.	-128.7	-336.9	-302.2	-107.5	-238.2	-359.8
o Bal. with EC	-1,168.6	-1,289.9	-949.6	-549.0	-413.7	-134.9

1/ SITC 0,1, 4.

2/ SITC 5-8.

Source: Un trade data, magnetic tapes.

TABLE A-6

Composition of Poland's Imports From the Industrialized West, 1974-79 (Millions of U.S. Dollars)

	1974	1975	1976	1977	1978	1979	1979 % of Total	Average Annual Growth Rate 1974-79 (%)
IMPORTS FROM I.W.	4,395.9	5,266.1	5,261.0	4,780.0	5,314.7	5,726.0	100.0	5.4
Foodstuffs (SITC 0,1,4)	405.5	540.9	821.5	552.5	927.9	1,176.1	20.5	23.7
Live Animals	1.2	1.1	1.9	1.0	0.4	0.3		
Cereals	223.3	460.0	636.6	353.6	657.7	867.4		
Meat & Meat Preparations	0.6	0.5	8.9	25.9	1.8	5.2		
Feeding-Stuff for Animals	102.8	53.9	90.2	66.3	144.6	125.4		
Beverages and Tobacco	13.4	11.8	15.5	20.9	24.2	29.7		
Fixed Vegetable Oils, Fats	17.4	14.0	10.5	7.9	11.3	27.3		
Other	46.8	49.6	57.9	76.9	87.9	120.8		
Crude Materials (SITC 2)	264.1	315.7	248.7	201.4	361.6	421.4	7.4	9.8
Oil-seeds Oil Nuts	51.6	42.7	13.6	5.4	41.9	55.6		
Textile Fibers	62.6	58.4	51.2	60.3	79.8	97.5		
Crude Fertilizers	15.8	35.9	23.9	46.6	66.2	64.0		
Metal Ores & Scrap	57.3	91.1	84.4	85.3	78.6	71.6		
Other	76.8	87.6	75.6	83.8	95.1	227.8		
Mineral Fuels (SITC 3)	44.8	40.5	41.8	41.8	34.0	41.9	0.7	-1.3
Petroleum Products	41.6	38.8	41.7	41.7	34.0	40.3		
Coal, Coke, Briquettes	2.9	0.9	0.1	0.1	0.0	1.6		
Other	0.3	0.8	0.0	0.0	0.0	0.0		
Chemicals (SITC 5)	492.6	530.7	601.2	641.4	700.9	848.4	14.8	11.5
Chemical Elements, Compounds	176.7	179.7	210.5	224.8	265.1	342.4		
o Organic	(130.1)	(123.1)	(157.4)	(155.4)	(187.4)	(244.9)		
o Inorganic	(36.0)	(36.4)	(42.8)	(47.3)	(42.2)	(54.3)		
Plastics	125.7	132.1	163.2	164.7	186.3	219.8		
Dyes, Tanning Products	76.5	61.5	56.0	66.2	68.6	72.4		
Medicinal Products	24.4	30.2	37.9	42.3	49.8	60.8		
Other	89.3	127.2	125.6	143.4	131.1	153.0		
Basic Industrial Goods (SITC 6)	1,475.9	1,529.3	1,320.6	1,195.2	1,209.9	1,401.4	24.5	-1.1
Iron and Steel	737.9	854.6	691.6	564.6	543.7	612.0		
Textile Fibers, Yarn, Fabric	264.6	189.5	180.0	180.0	207.3	253.6		
Non-Ferrous Metals	84.0	68.9	64.3	78.6	73.7	79.1		
Metal Manufactures	151.0	178.8	154.1	151.1	150.6	152.3		
Rubber Manufactures	42.4	42.4	54.2	50.2	59.0	83.2		
Paper, Paper Products	85.1	85.3	79.7	61.3	71.9	108.3		
Non-Metallic Mineral Manufactures	82.6	87.6	80.1	82.1	88.0	90.4		
Other	28.3	22.2	24.6	27.3	15.7	22.5		
Machinery, Transport Equipment (SITC 7)	1,521.8	2,064.8	1,980.0	1,849.9	1,866.6	1,612.5	28.2	1.2
Non-Electric Machinery	1,059.7	1,366.0	1,374.6	1,295.3	1,413.1	1,113.8		
Electric Machinery	219.7	301.2	346.9	333.3	302.8	287.2		
Transport Equipment	242.7	397.6	258.5	221.3	150.7	211.5		
Misc. Manufactured Goods (SITC 8)	144.1	150.2	185.5	169.9	166.1	165.5	2.9	2.8
Furniture	3.8	6.9	8.7	4.9	3.9	2.8		
Clothing	25.2	21.5	25.7	24.3	16.6	21.4		
Precision Manufactured Goods	54.8	55.8	70.8	67.4	72.9	68.7		
Misc. Consumer Articles	59.4	55.8	67.6	66.9	67.9	64.8		
Other	9.9	12.8	13.5	6.4	4.8	7.8		
Other	47.1	44.0	53.7	47.9	47.7	58.8	1.0	4.5

Source: U.S. Census Bureau, magnetic tapes.

TABLE A-7

LEADING POLISH IMPORTS FROM THE INDUSTRIALIZED WEST, 1977-79
(Thousands of U.S. Dollars)

Two-Digit SITC Aggregates

SITC	DESCRIPTOR	1979 RANK	1979 VALUE	% OF TOTAL	CUM %	1978 RANK	1978 VALUE	% OF TOTAL	CUM %	1977 VALUE	% OF TOTAL	CUM %
71	Machinery, Non-Electric	(1)	1113705	19.5		(0)	1413126	26.6		1295263	27.1	
04	Cereals, Cereal Preparations	(2)	867367	15.1		(0)	657661	12.4		353589	7.4	
67	Iron and Steel	(3)	612005	10.7		(0)	543709	10.2		564572	11.8	
51	Chemical Elements, Compounds	(4)	342357	6.0		(0)	265137	5.0		224809	4.7	
72	Machinery, Electrical	(5)	287169	5.0	56.3	(0)	302835	5.7	59.9	333338	7.0	58.0
65	Textile Yarn, Fibers	(6)	253571	4.4		(0)	207269	3.9		180019	3.8	
58	Plastic Materials	(7)	219820	3.8		(0)	186335	3.5		164728	3.4	
73	Transport Equipment	(8)	211530	3.7		(0)	150624	2.8		221285	4.6	
69	Metal Manufactures, nes	(9)	152327	2.7		(0)	150559	2.8		151052	3.2	
08	Animal Feedstuffs	(10)	125309	2.2	73.1	(0)	144642	2.7	75.7	66203	1.4	74.4
	Top 50 Total		5701466				5284710			4756676		
	Total Imports From 17 IW		5726040				5314749			4779931		
Top 50 as % of Total Imports From 17 IW			99.6				99.4			99.5		

Five-Digit SITC Aggregates

SITC	DESCRIPTOR	1979 RANK	1979 VALUE	% OF TOTAL	CUM %	1978 RANK	1978 VALUE	% OF TOTAL	CUM %	1977 VALUE	% OF TOTAL	CUM %
0410	Wheat	(1)	334732	5.8		(0)	189998	3.6		167953	3.5	
0440	Corn	(2)	253089	4.4		(0)	164438	3.1		131054	2.8	
7151	Machine Tools for Working Metals	(3)	187321	3.3		(0)	264095	5.0		203443	4.3	
0430	Barley	(4)	186705	3.3		(0)	246669	4.6		25058	0.5	
5812	Products of Polymerization	(5)	124558	2.2	19.0	(0)	96215	1.8	18.1	91650	1.9	13.0
6782	Iron Tubes and Pipes	(6)	117025	2.0		(0)	98811	1.9		84972	1.8	
0813	Oil-Seed Cake and Meal	(7)	99548	1.7		(0)	130329	2.5		48910	1.0	
73289	Other Motor Vehicle Parts	(8)	91175	1.6		(0)	86254	1.6		93613	2.0	
7198	Machinery and Mech. Appliances	(9)	89254	1.6		(0)	197641	3.7		138035	2.9	
71931	Lifting and Loading Machinery	(10)	78997	1.4	27.3	(0)	96311	1.8	29.6	115072	2.4	23.0
6715	Other Ferro-alloys	(11)	78772	1.4		(0)	39312	0.7		26258	0.5	
67431	Iron/Steel Plates/Sheets (Non-high Carbon)	(12)	61300	1.1		(0)	46244	0.9		63594	1.3	
5811	Products of Condensation, polyadditive	(13)	59525	1.0		(0)	57415	1.1		60564	1.3	
2214	Soybeans	(14)	54585	1.0		(0)	39827	0.7		0	0.0	
6783	Iron/Steel Tubes, Pipes (Non-cast iron)	(15)	53572	0.9	32.7	(0)	54770	1.0	34.0	59019	1.2	27.4
51212	Other Hydrocarbons	(16)	51714	0.9		(0)	27601	0.5		16030	0.3	
7222	Electrical Apparatus for Circuits	(17)	51648	0.9		(0)	67656	1.3		69010	1.4	
59999	Other Chemical Products	(18)	51270	0.9		(0)	38164	0.7		35787	0.7	
65164	Synthetic Yarn, Discontinuous	(19)	49786	0.9		(0)	41853	0.8		30206	0.6	
6911	Iron/Steel Structural Parts	(20)	49681	0.9	37.1	(***)	52770	1.0	38.3	47919	1.0	31.6
67501	Iron/Steel Hoop/Strip (Non-high Carbon)	(21)	48081	0.8		(0)	40000	0.8		40440	0.8	
65161	Synthetic Yarns, Continuous	(22)	47600	0.8		(0)	39239	0.7		26860	0.6	
71919	Other Heat, Cold-Treating App.	(23)	45693	0.8		(0)	68095	1.3		86377	1.8	
71922	Pumps for Gases	(24)	43954	0.8		(0)	35632	0.7		32535	0.7	
71954	Machine Tools Parts	(25)	41120	0.7	41.1	(0)	28228	0.5	42.3	28945	0.6	36.1
	Top 50 Total											
	Total Imports From 17 IW											
Top 50 as % of Total Imports From 17 IW												

*** - 1978 Rank greater than 200
Source: U.S. trade data, magnetic tapes.

TABLE A-8

ORIGINS OF LEADING POLISH IMPORTS FROM THE INDUSTRIALIZED WEST
(Millions of U.S. Dollars)

1979 Item Rank	SITC	DESCRIPTOR	1979 Origin	1979 Origin Rank	1979 Value	1979 Item/Origin % of Total	1977 Origin	1977 Origin Rank	1977 Value	1977 Item/Origin % of Total
1	71	Machinery, Non-Elec.			1,113.8	19.5			1,295.3	27.1
			FRG	1	332.7	29.9	FRG	1	419.5	32.4
			UK	2	150.3	13.5	France	2	135.3	10.4
			France	3	135.0	12.1	Japan	3	122.2	9.4
			US	9	41.1	3.7	US	8	59.5	4.6
			EC		765.7	68.7	EC		860.1	67.0
2	04	Cereals, Cereal Prep.			867.4	15.1			353.6	17.4
			US	1	399.0	46.0	US	1	197.7	55.9
			Canada	2	145.8	16.8	Canada	2	94.1	26.6
			France	3	112.6	13.0	Sweden	3	42.9	12.1
			UK	4	68.3	7.9	Denmark	4	6.1	1.7
			EC		252.5	29.1	EC		17.2	4.9
3	67	Iron and Steel			612.0	10.7			564.6	11.8
			FRG	1	186.4	30.5	FRG	1	210.6	37.3
			Austria	2	104.6	17.1	Austria	2	78.4	13.9
			France	3	76.2	12.4	France	3	60.6	10.7
			US	15	0.3	0.1	US	15	1.2	0.2
			EC		390.8	63.9	EC		394.6	69.9
4	51	Chemical Elements, Compounds			342.4	6.0			224.8	4.7
			FRG	1	105.0	30.7	FRG	1	63.2	28.1
			France	2	50.0	14.6	Japan	2	25.8	11.5
			Netherlands	3	40.4	11.8	Netherlands	3	22.0	9.8
			US	9	8.4	2.5	US	11	3.3	1.5
			EC		256.7	75.0	EC		156.1	69.4
5	72	Electrical Machinery			287.2	5.0			333.3	7.0
			FRG	1	84.2	29.3	FRG	1	70.6	21.2
			UK	2	33.3	11.6	France	2	59.9	18.0
			Japan	3	30.6	10.7	Italy	3	42.7	12.8
			US	8	14.7	5.1	US	9	10.3	3.1
			EC		180.1	62.7	EC		218.3	65.5

Source: U.N. trade data magnetic tapes.

TABLE A-9

I.W. EXPORT TRADE SHARES, 1974-79
(Thousands of U.S. Dollars)

	1974		1975		1976		1977		1978		1979		Total 1974-79	
	(000$)	(%)	(000$)	(%)	(000$)	(%)	(000$)	(%)	(000$)	(%)	(000$)	(%)	(000$)	(%)
IW TOTAL	4395889	100.0	5266122	100.0	5260996	100.0	4779931	100.0	5314749	100.0	5726040	100.0	30743727	100.0
Belg-Lux	200852	4.8	217118	4.1	205331	3.9	164742	3.4	148725	2.8	174944	3.1	1119712	3.6
Denmark	118490	2.7	130858	2.5	86602	1.6	85334	1.8	100713	1.9	97631	1.7	619628	2.0
F R Germany	1402662	31.9	1302294	24.7	1279576	24.3	1245608	26.1	1323335	24.9	1348390	23.5	7901963	25.7
France	373925	8.5	626605	11.9	749461	14.2	482703	10.1	504288	9.5	605747	10.6	3342729	10.9
Ireland	5582	0.1	6964	0.1	10370	0.2	9760	0.2	11302	0.2	7326	0.1	51304	0.2
Italy	330389	7.5	402543	7.6	327601	6.2	385790	8.1	395670	7.4	385719	6.7	2227792	7.2
Netherlands	159530	3.6	187286	3.6	160876	3.1	181425	3.8	204342	3.8	224948	3.9	1118407	3.6
United Kingdom	322699	7.3	390577	7.4	340084	6.5	349384	7.3	510425	9.6	550497	9.6	2463666	8.0
EC Sub-Total	2922129		3264245		3159979		2904846		3198800		3395202		18845201	
Austria	233350	5.3	332261	6.3	375049	7.1	356777	7.5	371781	7.0	435867	7.6	2105085	6.8
Canada	87275	2.0	112744	2.1	126793	2.4	139802	2.9	189563	3.6	228376	4.0	884553	2.9
Finland	47477	1.1	70060	1.3	71949	1.4	56442	1.2	52753	1.0	50119	0.9	348800	1.1
Japan	220453	5.0	257036	4.9	253747	4.8	209829	6.3	265647	6.3	221117	3.9	1517829	4.9
Norway	53296	1.2	63105	1.2	109175	2.1	84088	1.8	74695	1.4	88993	1.6	473352	1.5
Sweden	295207	6.7	408960	7.8	364973	6.9	317817	6.6	295872	5.6	327153	5.7	2009982	6.5
Switzerland	142114	3.2	177621	3.4	178296	3.4	183794	3.8	188551	3.5	192955	3.4	1065331	3.5
United States	394588	9.0	580090	11.0	621035	11.8	436536	9.1	677087	12.7	786258	13.7	5405594	11.4

Source: U.N. Trade Data, magnetic tapes.

TABLE A-10

COMPOSITION OF POLISH EXPORTS TO THE INDUSTRIALIZED WEST (I.W.), 1974-79
(Millions of U.S. Dollars)

	1974	1975	1976	1977	1978	1979	1979 Percent of Total	Average Annual Growth Rate, 1974-79 (Percent)
Exports to the I.W.	2,681.3	2,958.7	3,390.0	3,604.5	4,076.9	4,759.4	100.0	12.2
Foodstuffs (SITC 0, 1, 4)	522.4	494.3	589.0	618.5	706.7	788.2	16.6	8.6
Live Animals	106.8	68.1	85.8	102.0	139.5	164.6		
Meat and Meat Preparations	242.6	266.3	292.8	277.0	339.3	373.9		
Fish and Fish Preparations	26.2	26.6	31.4	30.1	21.1	42.8		
Fruits and Vegetables	67.7	71.3	110.4	129.3	126.8	121.9		
Beverages and Tobacco (SITC 1)	11.6	16.4	22.0	22.9	27.9	22.6		
Oil and Fats (SITC 4)	8.6	9.7	10.1	15.4	16.6	16.0		
Other	58.9	35.9	36.5	41.8	35.5	46.4		
Crude Materials (SITC 2)	282.7	275.0	330.4	336.6	343.2	443.1	9.3	9.4
Wood, Lumber, Cork	101.2	100.9	117.4	110.1	126.1	161.9		
Crude Fertilizers, Minerals	72.7	87.2	82.8	91.2	94.0	110.8		
Hides, Skins, Fur Skins	33.3	30.4	34.9	41.7	50.6	75.5		
Others	75.5	56.5	95.3	93.6	72.5	94.9		
Mineral Fuels (SITC 3)	824.0	1,081.7	1,049.7	958.0	1,034.9	1,250.7	26.3	8.7
Coal, Coke, Briquettes	751.7	995.4	864.2	798.7	868.5	1,005.5		
Petroleum Products	69.9	83.8	182.1	153.0	157.0	234.9		
Other	2.4	2.5	3.4	6.3	9.4	10.3		
Chemicals (SITC 5)	138.0	114.8	140.3	143.1	162.2	181.8	3.8	5.7
Chemical Elements, Compounds	74.0	61.6	68.9	69.8	86.8	101.7		
o Organic	(45.7)	(41.8)	(48.0)	(39.2)	(46.2)	(56.7)		
o Inorganic	(28.3)	(19.8)	(20.9)	(30.6)	(40.6)	(45.0)		
Manufactured Fertilizers	5.6	9.8	27.3	23.0	15.0	23.3		
Other	58.4	43.4	44.1	50.3	60.4	56.8		
Basic Manufactures (SITC 6)	461.1	380.1	486.8	558.5	741.7	904.3	19.0	14.7
Non-ferrous Metals	149.6	131.4	157.9	205.2	253.1	362.8		
Irand and Steel	130.8	82.7	123.3	139.2	229.6	219.2		
Textile Yarn, Fabric	68.7	60.3	77.3	82.0	88.2	115.0		
Nonmetal Mineral Manufactures	29.0	30.8	32.6	34.6	42.5	53.3		
Other	83.0	74.9	95.7	97.5	128.3	154.0		
Machinery and Transport Equipment (SITC 7)	201.4	317.1	442.6	558.5	610.6	629.6	13.2	25.6
Transport Equipment	75.5	121.0	235.0	315.2	323.8	303.4		
Machinery, Non-electric	90.3	152.1	154.6	181.1	201.3	221.5		
Electrical Machinery	35.6	43.9	52.2	62.2	85.4	104.7		
Misc. Manufactured Goods (SITC 8)	225.3	272.6	323.0	387.8	447.0	530.0	11.1	18.7
Clothing	113.8	134.6	159.0	195.3	232.4	291.9		
Furniture	36.3	46.6	58.9	76.4	79.1	87.6		
Footwear	25.9	38.3	47.7	51.6	61.9	65.2		
Instruments, Watches, Clocks	7.6	10.3	10.6	13.0	17.3	19.0		
Other	41.7	42.8	46.8	51.5	56.3	66.3		
Other	26.4	23.1	28.2	113.5	30.6	31.7	0.7	3.8

Source: U.N. Trade Data, magnetic tapes.

TABLE A-11

LEADING POLISH EXPORTS TO THE INDUSTRIALIZED WEST
(Thousands of U.S. Dollars)

Two-Digit SITC Aggregates

SITC	DESCRIPTOR	1979 RANK	1979 VALUE	% OF TOTAL	CUM %	1978 RANK	1978 VALUE	% OF TOTAL	CUM %	1977 VALUE	% OF TOTAL	CUM %
32	Coal, Coke, and Briquettes	(1)	1005468	21.1		(0)	860458	21.3		798728	22.2	
01	Meat and Meat Preparations	(2)	373945	7.9		(0)	339297	8.3		277042	7.7	
68	Non-ferrous Metals	(3)	362791	7.6		(0)	253081	6.2		205177	5.7	
73	Transport Equipment	(4)	303363	6.4		(0)	323790	7.9		315224	8.7	
84	Clothing	(5)	291850	6.1	49.1	(0)	232444	5.7	49.5	195303	5.4	49.7
33	Petroleum Products	(6)	234920	4.9		(0)	157429	3.9		152950	4.2	
71	Machinery Non-Electric	(7)	221509	4.7		(0)	201338	4.9		181112	5.0	
67	Iron and Steel	(8)	219210	4.6		(0)	229598	5.6		139248	3.9	
00	Live Animals	(9)	164556	3.5		(0)	139539	3.4		102032	2.8	
24	Wood, Lumber, and Cork	(10)	161928	3.4	70.2	(0)	126077	3.1	70.4	110114	3.1	68.7
	Top 50 Total		4720912				4041150			3586155		
	Total Exports to 17 IW		4759444				4076858			3604453		
Top 50 As % Of Total Exports to 17 IW			99.2				99.1			99.5		

Five Digit SITC Aggregates

3214	Coal	(1)	971870	20.4		(0)	845465	20.7		771881	21.4	
68212	Refined Copper	(2)	212790	4.5		(0)	151021	3.7		105329	2.9	
0138	Other Prepared Meats	(3)	197253	4.1		(0)	182340	4.5		146346	4.1	
7353	Ships and Boats	(4)	152509	3.2		(0)	229291	5.6		256415	7.1	
3323	Distillate Fuels	(5)	140985	3.0	35.2	(0)	77796	1.9	36.4	56066	1.6	37.1
7321	Passenger Motor Cars	(6)	108601	2.3		(0)	64318	1.6		37388	1.0	
24321	Sawn Lumber	(7)	100753	2.1		(0)	80111	2.0		70518	2.0	
68111	Silver, Unwrought	(8)	99787	2.1		(0)	59787	1.5		45557	1.3	
84112	Women's/Girl's Outer Graments	(9)	92659	1.9		(0)	72697	1.8		58676	1.6	
0015	Horses, Asses, Mules	(10)	79995	1.7	45.3	(0)	75292	1.8	45.1	64275	1.8	44.7
84111	Men's/Boys' Outer Garments	(11)	79712	1.7		(0)	64396	1.6		55713	1.5	
2741	Sulfur	(12)	71368	1.5		(0)	61190	1.5		81671	2.3	
2120	Fur Skins	(13)	66425	1.4		(0)	44267	1.1		37196	1.0	
0011	Bovine Cattle	(14)	66060	1.4		(0)	49782	1.2		26880	0.7	
3324	Residual Fuel Oils	(15)	62350	1.3	52.6	(0)	32166	0.8	51.3	70339	2.0	52.3
85102	Leather Footwear	(16)	61952	1.3		(0)	57843	1.4		48564	1.3	
67411	Iron/Steel Plates	(17)	60145	1.3		(0)	85925	2.1		19124	0.5	
7115	Internal Combustion Engines	(18)	51437	1.1		(0)	71234	1.7		61753	1.7	
82109	Furniture	(19)	50417	1.1		(0)	44683	1.1		46560	1.3	
7151	Machine Tool for Working Metals	(20)	47060	1.0		(**)	31702	0.8	58.4	23957	0.7	57.8
05361	Preserved Fruits	(21)	42996	0.9		(0)	45224	1.1		40444	1.1	
0114	Poultry, Killed or Dressed	(22)	42304	0.9		(0)	40915	1.0		33801	0.9	
84144	Outer Garments, Knitted	(23)	40542	0.9		(0)	35453	0.9		24748	0.7	
82101	Chairs and Other Seats	(24)	35624	0.7		(0)	34007	0.8		21144	0.6	
00115	Horse Meat	(25)	31999	0.7	62.4	(0)	26505	0.7	62.9	22364	0.6	61.8
	Top 50 Total		3561216				3072799			2628099		
	Total Exports to 17 IW		4759444				4076858			3604453		
Top 50 As % Of Total Exports to 17 IW			74.8				75.4			72.9		

Source: U.N. Trade Data, magentic tapes.

TABLE A-12

INDUSTRIALIZED WEST IMPORT TRADE SHARES FROM POLAND, 1974-79
(Thousands of U.S. Dollars)

	1974		1975		1976		1977		1978		1979		Total 1974-79	
	(000$)	(%)	(000$)	(%)	(000$)	(%)	(000$)	(%)	(000$)	(%)	(000$)	(%)	(000$)	(%)
IW TOTAL	2681323	100.0	2950695	100.0	3389953	100.0	3604453	100.0	4076858	100.0	4759444	100.0	21470726	100.0
Belg-Lux	122729	4.6	122698	4.1	72828	2.1	100088	2.8	112016	2.7	157286	3.3	687645	3.2
Denmark	147621	5.5	183205	6.2	169307	5.0	78313	2.2	92669	2.3	143171	3.0	814286	3.8
F R Germany	553264	20.6	581797	19.7	766988	22.6	901761	25.0	1037471	25.4	1205954	25.3	5047235	23.5
France	262403	9.8	352652	11.9	430214	12.7	425691	11.8	542586	13.3	551913	11.6	2565459	11.9
Ireland	35204	1.3	30379	1.0	27669	0.8	44710	1.2	50279	1.2	67039	1.4	255280	1.2
Italy	279155	10.4	306439	10.4	336787	9.9	352062	9,8	408596	10.0	493032	10.4	2176071	10.1
Netherlands	97475	3.6	143138	4.8	130165	3.8	149103	4.1	135320	3.3	154548	3.2	809749	3.8
United Kingdom	255628	9.5	253994	8.6	276467	8.2	304074	8.4	406187	10.0	487377	10.2	1983727	9.2
EC Sub-Total	1753479		1974302		2210425		2355802		2785124		3260320		14339452	
Austria	128036	4.8	146922	5.0	152391	4.5	148148	4.1	150102	3.7	202409	4.3	928009	4.3
Canada	44890	1.7	40121	1.4	45716	1.3	43954	1.2	62115	1.5	70695	1.5	307401	1.4
Finland	155295	5.8	167651	5.7	125490	3.7	168877	4.7	177620	4.4	216967	4.6	1011910	4.7
Japan	79443	3.0	79867	2.7	77045	2.3	73276	2.0	62574	1.5	72935	1.5	445140	2.1
Norway	52348	2.0	70076	2.4	164605	4.9	186754	5.2	82695	2.0	143508	3.0	609986	3.3
Sweden	165632	6.2	196842	6.7	260224	7.7	254734	7.1	197112	4.8	243546	5.1	1318090	6.1
Switzerland	36269	1.4	39825	1.3	35294	1.0	43822	1.2	80209	2.0	82965	1.7	318384	1.5
United States	265931	9.9	243079	8.2	318763	9.4	329085	9.1	479307	11.8	466099	9.8	2102264	9.9

Source: U.N. Trade Data, magnetic tapes.