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Specific and Systemic Causes of the Polish Crisis, 1980-82

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The Polish events of 1980-82 were triggered by causes belonging to three distinct categories. The first category consists of international factors related to the world economic depression. Following the energy price rises initiated by OPEC in 1973 and 1979, the market-oriented developed world has significantly readjusted production, consumption and trade patterns, in order to reduce its dependence on energy and to balance foreign trade payments. While the non-energy imports were also reduced, credit-financed export was strongly encouraged. Many semi-developed countries of Latin America, the Far East and Eastern Europe have taken advantage of these easy credits to continue their policies of fast economic development, and in the 1970s this growth strategy became a world-wide phenomenon. However, faced with the long-term strongly deflationary policies of the developed world, with their emphasis on low imports and high interest rates, this import policy collapsed under the weight of rapidly mounting external debts by the end of the 1970s and early 1980s.

Among the developing countries, the centrally-planned economies were much less successful in increasing their dollar exports in the 1970s than the countries of the market-oriented type. The second category, therefore, includes the systemic causes related to the functioning of Soviet-type economies. The third category covers the specifically Polish causes, which explain why the crisis in Poland has been more acute than elsewhere in Eastern Europe.

This paper[1] mainly discusses the systemic and the Polish-specific causes of the Polish events. The discussion focusses on the economic and socio-political reasons for the failure of the government to preserve those two key macroeconomic imbalances, external (foreign debt) and internal (excess demand for consumer

[1] An earlier version of the paper was presented at a conference on Poland organized by the Russian and East European Research Center at Tel Aviv University in January 1982. It was written when the author was a Fellow of the Netherlands Institute for Advanced Study in Social Sciences and Humanities, Wassenaar. Helpful criticism and useful comments by Tamas Bauer, Michael Ellman, Jan Rostowski and Hans Wagener are gratefully acknowledged. The final version was prepared in January 1983.

goods), within "safe limits." The implications of an over-centralized economy opposed to innovation, and of the workers' revolts in 1970, 1976 and 1980 are emphasized. Since the beginning of 1982 the Polish government has been making an attempt to reduce the macroeconomic imbalances by sharply reducing consumption, and to amend the traditional system by combining a far-reaching marketization of the economy with ruthless control in the political and cultural domains. This appears to be a more competitive variant of the Hungarian model which is likely to be seriously considered by other East European countries if and when their own difficulties become critical.

I. *Ignorance and Reserves as Factors in the Cyclical Pattern of Economic Growth*

Whatever the nature of the economic system, market-oriented or centrally planned, a crisis situation is a sign that the existing pattern of development cannot be sustained any longer. There may be a variety of direct reasons for this: shortages of some categories of labor or intermediate products or both, bottlenecks in the physical infrastructure (energy and transport in particular), an increasing balance of payments deficit, insufficient demand. However, the indirect and more fundamental reason must surely be that economic agents, whether private investors or governments, make operational (and long-term) investment decisions under conditions of considerable uncertainty and in ignorance of the present, and especially future, economic environment. They learn of the need to readjust their decisions and policies when it is too late. Seen in this light, the crisis phenomenon may be viewed as the price society pays for the decision makers' limited knowledge, a limitation that may be partly, though never wholly, avoidable.

Investment or output may change quickly, but this is not true of the labor force or capital stock. Downturns in economic activity tend to produce upturns in production reserves. During subsequent revivals in activity these reserves are partly or wholly activated, resulting in an above-trend output performance. The latter, in turn, may stimulate above-average investment growth and thus, according to the cycle theory, tend to drive the economy again onto an unsustainable growth path and toward a new crisis.

Although centrally planned economies are generally resource-constrained rather than demand-oriented, resource reserves may also be present. When they are, they tend to give rise to a "dash-for-growth" policy, to be almost inevitably followed by a period of growth slowdown, during which the planned economy can gradually cure itself of the imbalances and bottlenecks which have developed in the course of the boom period. The primary cause of what appear to be not random shocks, but endogenously produced (cyclical) fluctuations, is that some important resources, such as agricultural output, export earnings, or managerial and other labor skills, are also difficult for planners to know or reliably predict. Because of limited input substitutability, unforeseen severe shortfalls of some of these inputs may cause a growth slowdown. At the same time, some other resources are likely to continue to expand quickly, producing reserves and with them the conditions for a new sequence of prolonged boom, micro and macro imbalances, and enforced slowdown.

II. *The Activation of Reserves in Poland in the Early 1970s: A Case of Misinterpretation*

It seems that in the early 1970s the Polish central planners were highly impressed by the rapid expansion of agricultural and industrial output. Following the lean years of 1969 and 1970, the agricultural revival was probably due largely to the favorable weather conditions. However, at about the same time there were some changes in agricultural policy and the government used mass media to emphasize this factor as the main cause of the revival. The five-year output targets formulated in 1975 for agriculture, and especially for meat products, were highly optimistic.

The pre-1970 government under Wladyslaw Gomulka also bequeathed considerable reserves in the industrial and foreign trade sectors to its successor. As can be seen from Table II, labor productivity in industry was some 7% below its trend value, as a result of the poor performance in the second half of the 1960s. Some Polish economists argue that this situation was due to restrictions on imports of intermediate inputs, especially those of Western origin. Indeed, total imports from non-socialist countries were, in the 1960s, rising somewhat slower than Poland's total industrial output, and considerably more slowly than exports to those countries.

The relaxation of import restrictions and export targets which took place in the early 1970s probably activated these latent industrial reserves, raising the output and productivity performance almost immediately. But again, Polish party and government leaders and the mass media tended to interpret this performance as being due to "positive internal developments," such as a better new incentive system, improved management, and a measure of popular support for the new government, while at the same time playing down or ignoring the role of the external inputs in activating the reserves that were present in 1970. Consequently, the point that the spectacular growth improvement of the early 1970s could not be anything but a short-lived transitory phenomenon was conveniently overlooked. This self-serving misinterpretation of the causes of the boom inflated consumer expectations and prolonged the life of the dash-for-growth policy of the government, leading to a high level of credit-financed (consumer, material and investment) imports from the West in the years 1972-78. This prolongation eventually had the effect of dramatically increasing the severity of the shortages in domestic markets and the social price of the radical contractionary measures of 1979-82, such as the reduction of state investment by half and private consumption by about 30%.

This Polish crisis of 1980-82 was deeper, and in many aspects different from that of 1970. However, the accumulation of very considerable reserves is one feature they both share. It is important to identify these reserves so that, when the constraints on growth are gradually relaxed in the course of the 1980s, their activation should not unduly inflate the claims of success made by the government of the day and the expectations of the nation (see section IV).

In the winter of 1981 82 and the following spring, when the crisis reached its peak, the main question for Poland was how to halt the continuing contraction of the economy, which essentially represented an adjustment of domestic output to the falling dollar imports. The process of adjustment was also affected by the complex interaction of domestic and international economic and political factors. However, although these new factors came into play in August 1980, it seems that the key mechanisms which produced the crisis in the first place continued to function after that date, especially until the declaration of military government on December 13, 1981. These mechanisms are discussed in the next section.

III. *The Anatomy of the Polish Crisis: An Outline*

The system of economic and political institutions in Poland was, in the 1970s, quite similar to that prevailing in the other Comecon countries, of which only Hungary is something of an exception. It is well known that under such a system market competitiveness and financial discipline are low and allocative inefficiencies are large and widespread. Moreover, enterprises tend to resist innovation, especially if it saves material and enhances quality.

Low price and quantity flexibility result in persistent micro-disequilibria: shortages of some goods and surpluses of others. Yet it could also be said that, despite these important deficiencies, the system has served the USSR relatively well, at least until recently.

What then happened in Poland in the 1970s? What is Gierek's own contribution, apart from misinterpreting the reasons for the early successes, and what are the Polish nation's characteristics that have put Poland in the forefront of change?

It may be recalled that Gierek came to power following the December 1970 workers' uprising, an event that in terms of size and political consequences was already unique in the whole Soviet bloc. However the workers did not merely change the government. They also won a freeze on food prices at the pre-December level and a promise of high increases in real wages. The politically convenient and economically important freedom to set prices and real wages at levels which the center thought fit was thus partly lost. A bid to regain this control was made later on, in June 1976 and in the summer of 1980, but, as we know, was not successful. Even this partial loss of control over the economy was sufficient to rule out any acceleration of investment growth based on internal resources. This was confirmed by both the plan for 1971-75 and subsequent events. The investment rate in 1970 was already high, having been geared up in the 1960s to a level thought necessary to absorb the 3% annual increase in the (non-agricultural) labor force in the years 1965-75.

However, the new leader and his associates were keen to accelerate Poland's economic development. They were looking for ways of making a technological "great leap forward," of turning Poland into the Japan of Eastern Europe. A bid was made to build a "second Poland" and double the Gross National Income and consumption in the course of the 1970s. After the solid but dull and ascetic policies of the 1960s, the new leaders seemed to the man in the street to be offering an exciting new venture. As it happened, the signing of a "normalization treaty" with the Federal Republic of Germany in December 1970, followed by the Soviet-American detente of the early 1970s, conveniently opened Poland's access to external resources. The idea of using Western credits and technology to modernize Polish industry fast, and build an export sector capable of repaying the credit later on, proved irresistable. Accordingly, late in 1971 or at the beginning of 1972 the decision was taken to increase investment activity sharply through massive machinery imports from the West. An unusual case of parallel movement in the growth rate of both real wages and investment — increasing fast in the years 1972-75 and decreasing even faster thereafter — can be traced to this decision, as well as to the factors already mentioned: the activation of reserves in industry and agriculture in the early 1970s, and the political pressure to improve living standards.

The key to understanding the events of the 1970s is the development of internal and external imbalances. The former, which represents the excess purchasing power of the population over the supply of consumer goods, already started to emerge in the early 1970s, and was of course not planned. The external imbalance was part of the plan, but the government must have been alarmed, in the second half of the 1970s, by its size and the immense difficulties encountered in reducing its further growth.

The main reasons for the failure of the government to keep the two imbalances within "safe limits" can be grouped into three categories. One was economic mismanagement: many absurd investment projects were started; heavy dependence on imported components was permitted; severe bottlenecks in the supply of electrical energy and transport services were not anticipated; the private agricultural sector was not supplied with sufficient inputs and the heavy concentration of debt repayment for the years 1980-82 was overlooked. The second category comprises systemic economic factors: a low capacity to assimilate and improve advanced technology; an inability to respond fast to changes in demand and compete in quality and price in international markets; an emphasis on quantity rather than choice and quality and little regard for costs and financial constraints. The third category covers reasons of a political and socio-cultural nature, which include characteristics of the Polish society on the one hand and of the Polish party-government elite of the 1970s on the other. It should be noted that the Polish nation was never informed about the size of the external debt for most of the 1970s.

The riots of June 1976 were uniquely Polish. They showed that the working class was determined to oppose the correction of the two macroeconomic imbalances at the expense of its standard of living. This opposition alone made it virtually certain that a major crisis was inevitable sooner or later. Following the riots the government did make an attempt to correct the imbalances at the expense of investment, but its actions were slow and proved ineffective. At the same time, in the years 1976-80, the government bought time by allowing money wages to rise more rapidly than the consumer supplies and by continuing to borrow abroad on a large scale, thus putting the economy off-balance still further. This practice continued from August 1980 until December 1981 with remarkable consistency, and on a much larger scale.

The economic policy of the government since the summer of 1980, the performance of the economy in 1981, and in 1982 under conditions of martial law, are briefly discussed later in this paper.

IV. *Underutilization of Industry's Capital Stock and Labor Force*

The tentative nature of the estimates and suggestions presented below should be stressed. They are intended to give only some indication of the extent of Poland's major macroeconomic reserves, in 1981 and over the following few years.

Industry accounts for about half of Poland's material production and for some 80% of total export earnings. Its performance is also a vital factor in determining the output of other economic activities, such as agriculture, construction, transport, and domestic trade. Table II presents some of the basic industrial data for the years 1955-81. In the period 1950-65, the capital/output ratio had been declining, but it stabilized during the years 1966-70. However, in 1971-75, when imported inputs were more freely available, the ratio declined further by about 7%. Since 1975 it has been increasing sharply, especially over the last three years. If we assume that in 1975 the capital stock was fully utilized, then excess capacity in 1980 may be put at 34% of the output for that year. Or, to put it differently, in 1980 the capital utilization ratio was, in the industrial sector, about 75% of the 1975 ratio, and in 1981 it was about 60% of the 1975 ratio.

Labor productivity, as measured in terms of net output per employee (changes in labor hours per year were minor until 1981), was moving along the 5.7% trend in the years 1956-65. However, productivity increased slowly in the 1966-70 period, to reach a level of 7% below the trend in 1970. Following the relaxation of import controls in 1971 and subsequent large-scale imports of materials, machinery and know-how, the pace of labor productivity gains increased significantly, and in 1977 productivity reached a level of 7% above the (long-term) trend. Assuming that this 7% gain represented the impact of the improved technological composition of the capital stock, the productivity level in 1980 should also approximately have equalled 107% of the trend level for that year. However the actual level in 1980 was about 88% of the trend level, and assuming that labor was fully utilized in 1977, it follows that the labor utilization ratio in 1980 was about 82%.

In the years 1981-82, industrial employment declined by about 5% while net output in 1982 was some 25% below the 1980 level (see section IX). Over these two years both the capital stock and the trend level of labor productivity should have increased by about 10%. On the other hand, the introduction from February 1981 of 24 free Saturdays per year represents a fall in the supply of manhours of about 10%. The potential output effects of these two changes would thus approximately cancel out, implying that the utilization ratios both of the capital stock and the labor force fell by the end of 1982 to about 60%. Since Saturdays are again working days under the military government of December 13, 1981 it follows, therefore, that even if as much as 10% of the labor force is made redundant, there would still be very substantial reserves of unused industrial capacity.

V. *Energy as a Macroeconomic Constraint*

In the years 1955-70 electricity consumption by industry was almost precisely proportional to industrial output. However, as Table II indicates, the ratio of electricity input to industrial output was, in the 1970s, below its 1970 level; in the years 1974-77 it was in fact as much as 10-12% lower. It seems plausible, therefore, that the supply of electrical energy had already become the main constraint on output by the years 1973-75, some three years before the proportion of hard currency imports to industrial output began to decline.[2] Only over the years 1979-81 did the ratio apparently return to its trend level, more than half of the change being accounted for by a fall in industrial output. The output of highly energy-intensive products, such as fertilizer (of the nitrogen type) and cement was especially reduced, the latter falling in 1981 to about 60% of the 1977 level.

According to Polish press reports, the electric plants had been overexploited in the 1970s, and consequently have been suffering from an unusually high incidence of major breakdowns over the last few years. Moreover, the electricity transmission network is reported to be outdated and suffering from underinvestment. On top of this, the supply of coal for power stations is extremely tight and may well have to remain so for many years to come. The outcome would appear to be that even if imports of materials and components had been adequate, industrial output would have fallen in 1981 in any case, and possibly in 1982 as well, with only moderate increases forecasted for the years 1983-85.

However, the imports of materials and parts were of course extremely inadequate in 1981, with a further disastrous fall in 1982 due to credit restrictions imposed by the West following the military takeover on December 13, 1981. Beginning in 1977, the ratio of total imports to industrial output (both in real terms) has been declining. Hard currency imports per unit of industrial output fell particularly sharply. Consequently, in the years 1981-82 industrial imports became the macroeconomic bottleneck, and will remain so for many years, preventing the activation of capacity reserves until the economy is converted from Western supplies to domestic substitutes or Comecon imports.

VI. *Policy Mistakes and Potential Reserves in the Agricultural Sector*

Agricultural output in the years 1976-80 was in the range of 5-15% below the trend level of the 1950-75 period. Value-added had fallen particularly sharply to

[2] According to an official Polish source, there was a major shortage of electric power for the first time in the winter of 1975-76, when it was estimated at 4550 MW, or some 30% of the power supplied. The shortage remained about the same, in percentage terms, until 1979. Wlodzimerz Wodecki, "Atomowy bałgan," *Zycie Gospodarcze,* no. 3 (1983), p. 1.

some 25% below the trend. Only the sales of agricultural products to the state agencies had been moving broadly along the trend, partly reflecting the switch of farmers' households from food they produce themselves to subsidized food supplied by the state shops.[3]

Poor weather conditions notwithstanding, the government is now widely believed to have committed major policy blunders. Firstly, it permitted a reduction in the ratio of the total of private agricultural income per employee (net of taxes and investment) to average net money income per employee in the total state sector to 84% of the 1970 level of this ratio in 1975, and to 93% in 1977. (In 1975 the ratio itself stood at 74%. If all income in kind was assumed to benefit only the state sector, then this 1975 ratio would equal 61%.) This worsening of the relative income position, combined with the revival of the "socialization" doctrine and severe shortages of basic industrial inputs, induced potential young farmers to seek employment in the towns. The share of the arable land which remained in the private farm sector consequently declined from 75.1% in 1970 to 70.5% in 1975, and to 68.8% in 1977.

The price of such land had been more or less constant in the 1970s, but it must have declined significantly in real terms, while the price index of agricultural output more than doubled in that period. The size of the socialized farm sector (mainly the state farms) had thus been expanding. This sector uses about twice as much fertilizer and animal fodder per unit of land as the private farm sector. The consequent and inevitable decline in the provision of these two industrial inputs for the private farm, combined with a 10% decline in their total supplies over the three years 1977-79, must have hit the private farm considerably with predictable consequences. As if this were not enough, in 1980 came the disastrous crop failures in potatoes and sugar beet, and both crops fell by about 40% due largely to exceptionally poor weather conditions. The result was the food crisis of 1981.

Another interesting aspect of the agricultural sector is the fact of unusually high production costs incurred by the non-private farms. While private farms managed to increase the net nominal income (a concept close to value-added in current prices) per hectar from 10.2 in 1960 to 12.2 in 1975 and 13.6 in 1979, the socialist farms registered the following income: 5.1 in 1960, 5.0 in 1975, and 1.7 in 1979 (in thousand zlotys).[4] This is in fact a major reason why total net agricultural product in real terms shrank in the year 1979 to about 75% of its (long-term) trend value.[5]

The above analysis indicates the presence of considerable reserves also in Poland's agricultural sector. The key move required to activate these reserves would appear to be the dissolution of those socialist farms which are persistently making a loss, and the introduction of a second land reform. The private sector

[3] By 1980 bread was no longer baked in villages, and homemade butter and cheese had practical ly disappeared.

[4] R. Manteuffel, *Polityka,* Feb. 21, 1982, p. 4.

[5] If value-added per hectar in the socialist sector had moved, in the years 1960-79, in parallel to that in the private sector, total agricultural value-added in 1979 would have been 11% higher than it actually was. If the former had reached the level of the latter in 1979, the total value-added would have been 26% higher than it actually was.

would benefit immediately from higher deliveries of all sorts of industrial inputs. The move would also make the farmers more confident and secure, by removing the risk of socialization from their investment calculations. Both implications, coupled with appropriate rises in farm prices and a substantial increase in the supply of industrial goods and services for the sector as a whole, would probably be sufficient to keep the enterprising talent on the land and motivate the owners of private farms to become more modern and efficient.

In the early 1980s the major reserves are similar in kind to those of the early 1970s but by now they are larger in size and much more difficult to activate. The vitality of the private agricultural sector is probably still intact, and a suitable government policy could, weather permitting, lead to a substantial upturn within the next two to four years. The industrial sector however is another matter. The net transfer of resources from the West was, in the early 1970s, instrumental in quickly activating the industrial reserves of the time. Today, however, Western imports are and will have to continue to be extremely tight for several years yet, thus putting off the full activation of the reserves until the later years of the 1980s.

VII. *Trends in Dollar Exports and Imports and Debt Prospects*

In the four years from 1976 to 1979, Poland's trade with nonsocialist countries was already geared to the task of closing the gap. The average annual growth rates were 2.3% for imports and 9.3% for exports (trade in current prices). Industrial net output in that period was increasing at the still respectable rate of 4% One of the key questions now concerns the prospect of import and export growth in the coming years.

The ratio of dollar exports to industrial output, both in real terms, is given for the years 1970- 81 in Table II. It is remarkable that despite the strong emphasis on dollar exports, this ratio actually fell in the period 1973-77, and in 1977 it stood at only 85% of its 1973 level. In real terms, dollar exports increased in that period by approximately 3%, which was less than the increase in industrial production. Most of this fall took place in the years 1974-75, when total world exports (in real terms) also suffered a decline. In the present world trade environment, and with the recent fall in the production of coal, fertilizer, cement, and other exportables, it would probably be unduly optimistic to expect dollar exports in real terms to expand faster than industrial production. In fact in 1981 the total volume of exports fell by 20% and the volume of dollar exports by 28%, while industrial value-added fell by 19%. Significantly, the ratio of total exports to industrial output returned in 1981 to the 1970 level. The trade gap in 1981 reached about $2 billion, totally from trade with the Comecon group. In 1982 the dollar imports fell by about 30%, while dollar exports remained at the 1981 levels, resulting in a trade surplus of about $1 billion. However, since interest payments on Western debts run now at about $3 billion *per annum.,* the total dollar debt increased in 1982 by $2 billion and is expected to increase by a further $2 billion in 1983. In addition.

the Polish debt to the USSR reached the equivalent of $5 billion by the end of 1982.

Over the years 1976-79, dollar exports in nominal terms rose at an average annual rate of 9.3%, which is less than the present average interest charge, reported by the Polish (Central) Commercial Bank to be 11.5% in 1980. Industrial output and dollar export earnings are now severely restricted by limited dollar imports, while interest rates in the West are still on the high side. However the military takeover did supress consumption and consumer expectations, the first necessary steps toward bringing external imbalances under control.

VIII. *Systemic Factors in the Polish Crisis*

Joseph Schumpeter once argued that capitalism would fall under the weight of its successes.[6] A somewhat similar view was held by Karl Marx himself, who noted that the more successful the capitalists are in their efforts to accumulate capital and expand factory production, the faster they create a political force — the proletariat — that would take the capital and political power from them. Today these utterances may not be acceptable without substantial qualifications. Even so it seems still meaningful to inquire whether the present developments in Poland are the effects of a similar sequence of causality at work. The proposition would be that the successes of the Communist elites in the modernization and industrialization of their countries also breed economic and social changes that are contrary, and in the long run possibly deadly, to the elite's own interests.

Obviously the major difficulty in looking at Polish events in this light lies in singling out and assessing the contribution to the crisis of the systemic factors, listed below, from the influence of specifically Polish circumstances. The latter include the powerful Catholic Church, wide cultural and family links with the West, and historically rooted democratic traditions, together with startling economic blunders and corruption under Gierek's government. It would indeed be difficult to overestimate the significance of macro-economic mismanagement, especially in explaining the particular timing of the crisis. Equally it would seem to be wrong to view the crisis as being a uniquely Polish phenomenon. There are, in fact, good grounds for interpreting certain systemic factors and economic and social trends, common to all industrially advanced economies of the Soviet type, as additional causes of the crisis.

Among the many systemic factors that are common to Poland and her Comecon partners, the following three are particularly significant: (i) central control over the wages of workers and prices of consumer goods; (ii) the low level of enterpreneurship on the part of local managers and the limited disciplinary role of markets, and (iii) persistent shortages in home markets, slow innovation, and the low non-price competitiveness of manufactured goods produced for export markets.

Apart from these systemic factors, we have also to consider a number of key

[6] J. Schumpeter, *Capitalism, Socialism and Democracy* (London, 1976).

social and economic trends. These trends are all associated with the gains in the industrialization process that have been made in the postwar period. These are as follows: (i) a change in the composition of the population from peasants to town dwellers and, among them, to workers in large factories; (ii) a change in the composition of production from primary activities, such as agriculture and mining, to manufacturing and services; (iii) a change in the composition of needs (and consumption), from the most basic to more sophisticated material and non-material needs, such as high protein food, better housing, cars, travel abroad, and so forth.

These three trends are of course not system-specific; they are in fact common to all countries that undergo rapid industrialization. However, when these trends occur in a country where both economic and political power are highly centralized, and where economic well-being depends strongly on success in trade with the competitive West, then the likelihood of serious economic difficulties and consequent political tensions increases with time. This is true unless substantial reforms are introduced, in the direction of increased marketization of the economy and, more gradually and subtly, political democratization of the state.

The argument runs as follows. A less developed country of the Soviet type, such as Poland or Romania in the 1950s, initially had a sizeable trade surplus in agricultural products and minerals which was used to pay for net imports of "technology-intensive" goods. However, with the progress of industrialization and urbanization, the domestic demand for minerals and basic materials for industry and for agricultural products has increased faster than domestic supplies.

Two systematic factors have accentuated this trend. One was that the choice of techniques and innovations tends to be heavily biased towards a high material intensity, with a consequent high consumption of energy, steel, cement and so forth per unit value-added, and a corresponding bias in the composition of investment outlays.[7] The other factor relates to the apparently increasing difficulties caused by the traditional way of controlling workers' wages and consumer prices. Although workers under any system insist on high wage increases and resist price rises, the implications for economic and political stability are system-specific.

In a competitive economy prices are set by the impersonal market and wages are constrained by the threat of unemployment. The former insures that microeconomic disequilibria between demands and supplies do not arise, or tend to disappear quickly, while the latter ensures that the possibility of hyper-inflation, which has the potential of destabilizing the economy as a whole, is not very likely. Consequently, price increases and unemployment tend to be viewed as externalities; as certainly unwelcome, but perhaps inevitable, by-products of

[7] An aggregate indicator of the material (primary and intermediate) consumption is the use of energy per dollar of the national product. This was in 1979 (in kilograms of coal equivalent) 0.48 in Japan, 0.56 in West Germany, 0.6 in Austria, 0.89 in the U.K., but 1.5 in Poland (Jerry Kleer, *Polityka,* March 13, 1982). The Soviet and other Eastern European figures are close to the Polish one. The difference in these data between East and West appears too large to be explained away by reference to various measurement errors.

economic activity. The blame for them is also spread throughout the economy, rather than focussed exclusively on any single part of it.

On the other hand, in centrally planned economies the responsibility for price increases rests solely with the government. Hence price increases are not seen as inevitable. They may still be necessary, but this has to be supported by argument. Alas, the Soviet political system is singularly ill-suited for seeking consent. In fact, price rises have always come as a surprise to the population, the authorities at times offering a justification *ex post facto.* Moreover, for reasons that are not quite clear, although administrative convenience is certainly one of them, government price rises are usually not gradual, but sporadic and sudden. The authorities must of course be aware that their price decisions send shock waves among the consumers, and that the resulting political cost probably increases as industrialization proceeds. Consequently, the authorities in the USSR and Eastern Europe appear to be increasingly reluctant to impose the price rises for basic consumer goods that are required to maintain a market equilibrium at home and a sizeable surplus for export. In fact the two largest countries of the Comecon group, the USSR and Poland, became food importers on a big scale in the 1970s.[8]

The turnabout in the trade balance for food and other primary products would not be so serious if the dollar exports of other manufactured goods, especially technologically more advanced products, had risen sufficiently fast. The foreign trade data indicate however, that the sales of centrally planned economies on the primary international markets for mass-produced consumer goods, components and investment equipment continue to be marginal. Consequently the balance of payments constraint to growth is looming large, and especially so for the smaller East European economies, which are much more dependent on imports and less endowed in natural resources than the USSR.

In the 1970s an attempt was made to overcome this by borrowing in the West and modernizing the export sector. This policy permitted a high level of investment activity and relatively fast industrial growth throughout most of the decade, but it has clearly failed to stimulate manufactured exports to the levels expected in the early 1970s. Faced with a net debt of about $80 billion and a continuing large balance of payments deficit of some $10^15 billion *per annum,* the Comecon countries are now being forced to curtail their dollar imports severely, reduce industrial growth and often accept high under utilization of the facilities that were built with the help of Western suppliers in the earlier years.

Summing up, the major barriers to growth and the areas of conflict appear to be as follows. Firstly, the planners' ability to control consumer prices and workers' wages effectively is under increasing strain; in Poland it was repeatedly challenged in the 1970s, and from the summer of 1980 until December 13, 1981 it was practically lost. The pressure is thus probably building up to broaden the narrow political base of present Communist governments, so that their decisions concerning prices and wages will appear to command wider support. Alternatively,

[8] In Poland the trade imbalance in food and food products represented, at $4.3 billion, 24.4% of the total dollar trade imbalance for the decade.

central planning may have to be replaced by a regulated market mechanism of the Yugoslav variety, or at least of the Hungarian type, so that the consumer price rises become less of a factor integrating workers against the government. If this latter course is adopted, the pressure for political democratization may be containable for some time yet.

Secondly, the common Western view that the present Soviet system is not conducive to fast innovation or successful competition in international markets now seems to be accepted in Eastern Europe more widely than ever before as being a major systemic weakness. This failing may well be serious enough to prevent the industrially advanced and centrally planned economies from making any further gains in closing the (still large) technological gaps between them and the West. What is, in this respect, merely a possible outcome as regards the USSR, seems a probable one as regards the small East European economies which have neither the large quantities of minerals needed for exports to finance technological imports, nor large research and development resources for effective incentive and imitative activity at home. These smaller countries are consequently faced with a disturbing dilemma: they must either sharply increase the allocative role of markets and competition at home, probably at the expense of some long-standing socialist objectives such as job security, or else sharply reduce technological imports from the West and accept their own present technological inferiority as something more or less permanent. The urgent need to restrain the large dollar debt from rising still further must give this dilemma an added emphasis, as must the prospect of the small Comecon countries having to increase their imports of oil from the dollar market in the course of the 1980s and beyond.

A third powerful factor that now acts to decelerate growth is the policy, pursued by all these countries in the past, of concentrating on investment in industry at the expense of the infrastructure. Consequently, the transport and communication sectors are now so underdeveloped that they are widely considered to be serious bottlenecks. These sectors are, however, highly capital-intensive. Other underinvested sectors, such as housing and agriculture, are also highly capital-intensive, and hence likely, in the future, to attract a significantly greater share of investment resources than they have in the past.

The growth slowdown in the USSR and Eastern Europe, which set in during the middle of the 1970s, continued in the years 1980-82. This was happening at a time when the workers were already numerous and the population was becoming more educated. The combination of these two trends has proved to be explosive in Poland, where the working class has apparently also become more self-confident after the events in 1970 and 1976. It is conceivable that these trends will have no such dramatic effect in other East European countries, especially in the immediate future. However, after Polish events the Communist elites may be justified in thinking that the risk of a serious attempt to make them accountable is probably on the increase in all Communist countries. This perception alone, if it spreads widely, could have a significant influence in enlarging the political base of the governments of Eastern Europe, and making the economies of the region more efficient. However, the Polish events of the years 1980-82 also indicate that while significant economic reforms are conceivable in Eastern Europe before they are attempted in the USSR, the pace of the political democratization is likely to be decided largely in the factories and towns of the Soviet Union.

IX. *Events in 1981 and 1982: The Remarkable Interlock Between Politics and Economics*

In the section above we were concerned with the wider, long-term and systemic aspects of the Polish crisis. In this concluding section we return to the domestic scene to consider developments since the summer of 1980.

The establishment of Solidarity raised expectations of radical reforms but, it seems, not many expected an early improvement. Yet the population appeared stunned by the extent of the economic deterioration in Poland in the course of 1981, a fact that must have helped the government to contain the popular resistance against the December 1981 crackdown. Without going into details, it would be instructive to note the actual extent and the main causes of this deterioration. This should also prove useful for the primary purpose of this section, which is to comment, albeit briefly, on the internal dynamics of the crisis.

The main economic indicators for 1981 (in comparison with the performance in 1980) were as follows: industrial production down by 19%, electrical energy down by 5.7%, meat sales to the state down by 22.3% and nominal wages up by 25%. Agricultural output in 1981 was estimated to be some 10% less, and GNP to be 13% less than in 1980. Real exports and imports in 1981 were both 20% less than in 1980. Despite severe cuts in the import of machinery and current inputs, the balance of payments gap widened from about $3 billion in 1980 to $5 billion in 1981, of which about $3 billion was in hard currencies.

The internal (consumer) imbalance also increased sharply. In the first three quarters of 1981 the gap between private disposable income and all private expenditure was 134.7 billion zlotys, or 9.6% of the disposable income. This difference used to be, in the 1960s and 1970s, in the range of 2-5%. Assuming that this represents the ratio for voluntary savings, forced savings in 1981 were some 5-8% of disposable income. However, the stocks of consumer goods were depleted in the first three quarters of 1981 by 76.5 billion zlotys or 5% of the income. The underlying (trend) ratio of forced savings was equal, therefore, to some 10-13%. The data for September 1981 confirm this, as the total (voluntary and forced) savings ratio in that month reached a level of 15%. By the end of 1981 the accumulated forced savings appear to have been about 500 billion zlotys, which was three times the value of the consumer goods that still remained in stock. Consequently the queues were getting longer, the regulation system was spreading and the social cost of obtaining goods was rising. There were also signs that Polish currency was becoming unacceptable as a means of payment, and that the volume of transactions in hard currency and on a barter basis was rising sharply.

The immediate major causes of this economic deterioration in the aftermath of the summer strikes of 1980 are not difficult to identify. The fall in meat supplies was largely the delayed effect of the potato disaster of 1980. The fall in coal output by about 40 million tons per *annum,* worth about $2.5 billion, was almost entirely due to the miners no longer being willing to work on all Saturdays and some Sundays. This fall, in turn, affected the supplies of energy and export earnings. As these two inputs limit the overall level of industrial activity, the supplies of industrial products for domestic and export markets duely declined. Since employment remained unchanged labor productivity fell sharply, by some 15-20%. At the same time the Gdansk agreement resulted in wages increasing faster than state-controlled prices. The consequent surplus of purchasing power over output has created havoc in the domestic market. The government felt it needed to buy time, so it responded to the acute shortages of basic consumer goods in state shops by reducing exports and increasing imports of these goods. The inevitable effect of this policy was a further reduction of the import of current inputs for industrial production.

The rescheduling agreements of 1980 between the Polish government and Western parties simply acknowledged that Poland could not repay the principal on the dates initially promised. However, the agreements also stipulated that Poland would continue to pay the interest, an obligation which it proved impossible to meet in 1982 and which cannot be met for several years yet. Dollar exports were $8 billion in 1980, but fell to about $5.4 billion in 1981.

From this brief survey it is quite clear that Poland, by the end of 1981, was on the brink of economic chaos and political unrest that could have been much worse than anything seen before. Under these circumstances it was legitimate to ask, as many did, whether there was any non-violent way out of the crisis threatening Poland.

The key difficulty has been widely recognized as political in nature. It lay in part in the determined opposition of the population, articulated through the Solidarity movement, to the admittedly very large increases in consumer prices which were necessary to equilibrate markets, and to other austerity measures. Possibly this opposition would have been much weaker had institutional changes been introduced that, in the eyes of the population, would reduce both the widespread inefficiencies in factories and costly macro-economic blunders at the center, and so make the "sacrifice" worthwhile. The institutional changes insisted on by Solidarity, such as all-powerful workers' councils in enterprises, wide access to the mass media, much restricted censorship and free elections to Parliament and local councils, would, however, amount to transferring economic and political power from the Communist leadership to the elected representatives of the nation. Such demands were, naturally enough, strongly opposed by the Communist elite. This opposition became particularly vigorous in August 1981, following a relatively successful party congress in July 1981 on the one hand and anti-Communist "hunger marches" in Kutno, Lodz and Warsaw on the other. By October the party leadership apparently realized that the propaganda war with Solidarity was not particularly successful. Moreover, the industrial administration and civil service, caught up between the two sides, began to adapt a wait-and-see attitude, which rendered central directives increasingly ineffective. There were also indications that the rank-and-file membership of the Communist Party was falling at an increasing

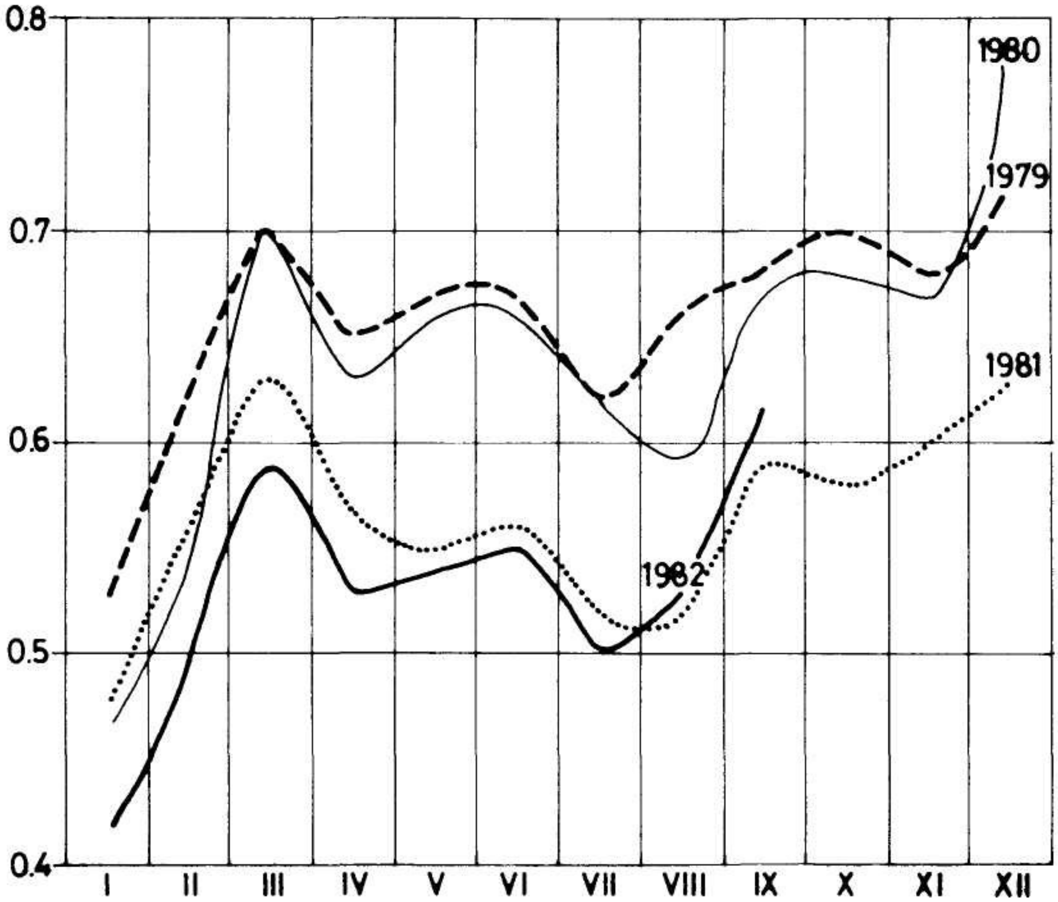

Fig. 1. Global monthly industrial output in Poland, 1979-82.

Source: Zycie Gospodarcze, no. 36, 1982.
Note: Socialized sector, output sold, in 1982 prices. The value unit is 10^6 million zlotys.

rate, and that most of those remaining were unwilling to defend the leadership in political confrontations at the local level. The time had come to use other means to defend the Communist power structure.

X. *Concluding Remarks*

Poland in the years 1976-81 resembled a social laboratory, demonstrating vividly how major economic problems breed mass political unrest, which then helps to spread dissent and can promote new leaders. These in turn attempt to channel this unrest into social pressures for immediate policy changes and longer term institutional reforms. The rise of Solidarity had clearly put at risk the stability and the very survival of the traditional Communist system. The threat to Communist rule from political democratization and in particular Solidarity's insistence on free elections to the Polish Parliament, was very real. For these reasons it had to be removed. The military takeover was, in this sense, the system's act of self-defense, even if desperate and crude.

Following the takeover, the Communist elite under Jaruzelski's leadership still seemed ready to identify and gradually introduce those economic and political reforms that might be thought capable of meeting the main economic problems without, at the same time, endangering the elite's nearly absolute power. Since the beginning of 1982 an attempt has been made to amend the traditional system by combining what eventually is intended to be a far-reaching marketization of the economy and some ideological flexibility with ruthless control in the political and cultural domains.

The response of the Polish Communist elite to the crisis may well be indicative of the kind of systemic changes that may be adopted throughout the region. If one overlooks the ideological content of the state propaganda and the question of ownership of the productive assets, the system that emerges would be similar to that prevailing in Spain under Franco, in Greece under the colonels or in Germany under Hitler, with comparative freedom in the economic domain but strict control in any other field as its essential features. However, the level of repression, actual and potential, needed to sustain such a system in a modern and well educated society may have to be high. This must be so especially in Poland, where an inevitable further steep decline in national production in 1982 is likely to be followed by a period of slow recovery and high inflation at a low level *of per capita* consumption.

Moreover, Poland's inability to pay interest for a number of years introduces an element of uncertainty in East-West economic relations, since now Poland may be declared, or declare herself, in default at any time. This would possibly trigger off severe credit restrictions for the whole of Eastern Europe and hence increase the risk of further defaults. Should a chain reaction actually happen, some of the countries may also follow Poland in adopting a mixed economic system that would combine limited decentralization and marketization with some form of military control, and which would be retained until the economic slide is stopped and the balance of payments equilibrium restored.

Table I
Basic Growth Data: Poland 1971-82

	1971	*1972*	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*
Domestic output, NN(M)P	8.1	10.6	10.8	10.4	9.0	6.8	5.0	3.0	2.3	−5.4	−13	−8
Investment in fixed capital	7.5	26.0	25.9	24.2	15.2	2.8	3.4	0.6	−5	10	15	19
Industrial gross output	8.8	10.2	11.0	11.3	11.0	2.3	6.3	3.6	1.9	−1.2	−15	−2
Agricultural gross output	3.6	8.4	7.3	1.6	−2.1	−1.1	1.4	4.1	1.5	−10.7	3	−4.5
Exports (in real terms)	6.2	15.5	11.6	12.3	8.3	4.4	8.0	5.7	6.8	−4.2	20	+9.4
Imports (in real terms)	14.0	21.8	22.8	14.9	4.4	9.6	0.1	1.5	−0.9	1.7	20	15.6
Real wages	5.7	6.4	8.7	6.6	8.5	3.9	2.3	−2.7	2.4	5	?	−30
Productivity of fixed capital	1.8	3.8	3.0	1.0	−1.1	−2.6	−4.3	5.6	−9.6	−11	20	10
Productivity of labor	6.9	8.6	9.0	8.2	8.3	7.7	5.0	3.3	1.5	4	−12	5

Sources: Report on the State of the Economy, July 1981
Życie Gospodarcze, October 25, 1981
Report of the Central Office of Statistics, *Trybuna Ludu*, no. 36, Feb. 12–13, 1983.

Table II

Poland's Industry (Socialist and Private) and Foreign Trade 1955–81: Basic Data

	1970=100		Annual % Growth Rate		1975=100	Y/L	1970=100	Constant Prices		1970=100	
	Y	K	Gy	Gk	K/Y	(Y/L) trend	Electricity input / Y	Total exports / Y	Dollar exports / Y	Total imports / Y	Dollar imports / Y
1955	29.47	34.30			123		102	83			
1960	44.94	49.53			118	100	103	84			
1965	68.80	68.85			107	100	101	93			
1970	100.00	100.00			107	93	100	100	100	100	100
1971	108.50		8.5	6.3			98	98	103		
1972	119.80		10.4	9.0			96	96	107		
1973	134.50		11.6	9.3			93		106		
1974	150.80		12.0	12.6			89		100		
1975	167.00	158.50	11.4	11.2	100	103	88	100	95	122	193
1976	182		9.3	10.6		106	88		99	124	198
1977	196	190.90	7.7	12.2		107	90		92	115	164
1978	200	215.40	2	9.5		103	96			115	
1979	196	230	−2	7	124	95	99	108	100	114	152
1980	190	242	−3	5	134	88		107	107	114	144
1981	152	250	−19	3	165	72		107	105	114	115

Y = net product (approximately value added), 1971 prices.

K = gross fixed productive capital, until 1970 in 1971 prices, from 1971 in 1977 prices.

(Y/L) trend = at trend rate of 5.7% per year, which is the average growth rate of (Y/L) in the years 1956–65.

Electricity use to output ratio given for the socialist industry only.