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"SHOCK THERAPY" IN POLAND

The Response of State-owned Enterprises

Jan Kulig and
Adam Lipowski

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PREFACE

The International Center for Economic Growth is pleased to publish *"Shock Therapy" in Poland: The Response of State-owned Enterprises,* by Jan Kulig and Adam Lipowski, as the forty-fifth in our series of Occasional Papers, which present reflections on broad policy issues by noted scholars and policy makers.

In their incisive analysis of the Polish economy, the authors examine the behavior of Poland's state-owned enterprises (SOEs) in the wake of the reform and stabilization programs enacted in 1990. They show that the actions of the SOEs—before and during the stabilization program—helped to fuel recessions in 1990 and 1991, and helped to keep industrial output low.

"Shock Therapy" in Poland describes the prestabilization economy as one in crisis. To combat the effects of hyperinflation, shortages, and monetary disequilibrium, the government adopted a series of major reforms.

The authors refute mainstream arguments that blame excessively restrictive financial and monetary policy as the cause of the stagnation in output. They contend that the trading SOEs themselves caused the 1990 recession by driving up retail prices; producing SOEs manipulated wholesale prices to maintain high profitability—at the expense of output growth. SOEs disregarded the fall in demand as the stabilization programs took hold; hyperinflation and shortages were eliminated as the economy regained equilibrium.

Dr. Kulig and Dr. Lipowski argue that financial policies and the banking sector were weak links that contributed to the stagnation in output in 1990 and 1991. For political reasons, the government has been reluctant to initiate bankruptcies of unprofitable enterprises, and

the banking sector continues to fund enterprises that cannot hope to repay their debts. The banking sector is commercial in name only—it is actually owned by the state. The authors assert that the banks must be privatized, or the practice of funding unprofitable enterprises will persist—and potentially profitable enterprises will be crowded out.

Dr. Kulig and Dr. Lipowski recommend establishing a bankruptcy mechanism for eliminating inefficient SOEs. They conclude that the mainstream opinion that demand must inevitably drop when inflation-control measures are introduced does not hold up in Poland. Output dropped during prestablization hyperinflation and during so-called corrective inflation; since inflation-control measures began in early 1991, industrial output has stabilized.

The views presented by Dr. Kulig and Dr. Lipowski make *"Shock Therapy" in Poland* a valuable resource for policy makers and economists seeking to deepen their understanding of the challenges of economies in transition.

Nicolás Ardito-Barletta
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Panama City, Panama
November, 1993

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Jan Kulig is professor of international and development economics at the Warsaw School of Economics and at the Institute of Economics of the Polish Academy of Sciences. He received his M.A. and Ph.D. in economics from Warsaw University. He visited, and worked in, several developing countries including Ethiopia, Egypt, South Korea, and Zambia. He also served as an expert for UNEP and UNIDO. Author of several books and papers on developing countries, his current research interests include the lessons that structural reform in over-indebted developing countries hold for transforming economies of Eastern Europe.

Adam Lipowski is professor of economics at the Institute of Economics of the Polish Academy of Sciences in Warsaw. He received his Ph.D. from Warsaw University. His research interests include, in particular, macroeconomic policy change in Eastern Europe, about which he has written several books and papers. Currently he is involved in a study of Polish macroeconomic transformation and structural change in the manufacturing industry. During the first Solidarity-led government in Poland (1989–1991), he was a member of the economic council advising the prime minister, economic adviser to the finance minister of the government of Poland, Dr. L. Balcerowicz, and to the minister of planning.

Jan Kulig and Adam Lipowski

"Shock Therapy" in Poland
The Response of State-owned Enterprises

One of the major challenges facing countries attempting to transform their economies from centrally planned systems to market systems is how to avoid the dramatic declines in industrial output that have been experienced in virtually all of the post-communist European economies. It is true both in countries that have implemented systemic reforms (Czechoslovakia, Hungary, and Poland) and in those that have not (Bulgaria, Romania, Russia, and other post-Soviet republics). The problem has set off a great controversy regarding explanations and a search for possible solutions.

Several analysts—including the present authors—have argued that the fall in output is an unavoidable cost of the transition under the circumstances then prevailing. Although the magnitude of the drop might be reduced, it cannot—this argument goes—be altogether avoided because the enormity of change unavoidably fractures the continuity of the development process. Other influential economists argue that the decline of output results from mistaken "economic therapy" implemented in the transition programs launched thus far, and that it can be avoided if the right policies are implemented.

These positions have different policy implications, in both the short and the intermediate terms. Understanding the causes of the decline of output is crucial to guiding future policy decisions.

In this paper we consider the problem by focusing on Polish manufacturing industry performance in 1990 and 1991—the first two years

of the country's reform program. Poland provides an excellent example for a serious (as opposed to journalistic) case study of this problem, because it was the first country to initiate a serious reform program, and because it is among the most advanced countries on the road to a full market system.

We begin by reviewing the conditions of the Polish economy prior to enactment of reforms in 1990 and the principal features of the stabilization plan. We then summarize the major attempts to explain the severe recessionary phenomena that were caused by these output declines. The next three sections present the heart of our analysis regarding the attitude and behavior of the state-owned enterprises (SOEs). This discussion reviews the SOEs' precautionary efforts undertaken before the stabilization program, their response to the program's price liberalization and internal trade policy, and other factors influencing both their behavior and that of other economic agents. We then review long-term forces influencing the macroeconomic situation in Poland, and finally (in our last two sections) we present our overall conclusions and recommendations.

Background: the Polish Economy Prior to Reforms and the Stabilization Program

In the late 1980s, after more than forty years of central planning, Poland's economy was in severe crisis. Especially in 1988 and 1989, it was in deep disequilibrium with regard to both goods and factor markets, and it suffered the beginnings of hyperinflation, widespread shortages, serious distortions in prices, interest and exchange rates, subsidies, and tariffs. In 1989, just before the macroeconomic reforms, basic economic indicators were deteriorating very rapidly. Prices were rising at an accelerating rate—from 8.5 percent per month during the first half of the year to more than 30 percent per month in the second half. Decisions made by previous communist governments to partially liberalize prices and fully index wages had triggered a typical wage-price spiral. The budget deficit was increasing very rapidly. Monetary disequilibrium, hyperinflation, and high inflationary expectations intensified shortages of goods, raw materials, and energy, and

manufacturing output dropped significantly. With high and rising inflation, households and consumers preferred dealing in foreign currency, mostly U.S. dollars, rather than in domestic currency, while enterprises and farmers increasingly hoarded goods, supplies, and inputs, anticipating further price rises.

In these crisis conditions, the new democratic government had to initiate its pro market reforms. The stabilization program had the following aims and measures:[1]

- To reduce significantly the rate of inflation, eventually of 1–2 percent per month;
- To absorb excess liquidity and eliminate shortages; and
- To eliminate most of the important price distortions caused by subsidies and by price controls—for the purpose of moving the price structure closer toward the level and composition of manufacturing costs.

To reach these objectives, the following measures were instigated:

- Virtually all prices hitherto administered by the state were liberalized.
- A so-called internal convertibility of the Polish currency—the zloty—has been introduced for current transactions and the differentiated exchange rate eliminated.
- Domestic currency has been drastically devalued vis-à-vis the dollar (by more than 80 percent in comparison with the exchange rate prevailing in December 1989); a constant exchange rate was introduced later.
- Subsidies were dramatically reduced in order to balance the central budget.
- Wages were virtually frozen (the indexation coefficient being initially 0.3, and subsequently 0.2 and 0.6).

- The interest rate was raised substantially, from 8–9 percent per month to 38–65 percent per month, in order to arrive at a positive real interest rate (the reference point being the price increases projected during January 1990).
- The supply of credit was cut significantly; in particular, the National Bank of Poland was no longer financing the budget deficit.
- The value of the fixed assets of enterprises was reassessed, the new value being several times higher than the original.
- Prices that had been set administratively for various energy sources for enterprises were increased sharply: hard coal and electricity by 300 percent, crude oil by 233 percent, natural gas by 250 percent, and gasoline by 100. Freight rates went up by 200 percent.[2]

The results of these measures were dramatic. Macroeconomically the Polish economy rapidly turned around, from being plagued by shortages to a state of relative equilibrium. The hyperinflationary spiral was broken and the demand overhang largely absorbed. Price increases remained quite high during the first two months of the stabilization program (78 percent in January 1990 and 24 percent in February) compared with prices in December 1989, but subsequently the increases were brought under control. Although still relatively high, subsequent price hikes ranged from 2 percent to 5–6 percent per month. For the first time in Poland's postwar history, enterprises faced a high demand barrier.

This demand barrier was a reaction to the "corrective inflation" introduced at the beginning of the stabilization program and accompanied by a rigid wage and salary control system. Consequently, real wages dropped dramatically, by about 27 percent in the first half of 1990, for example. This had a significant effect upon the level of output. Sales by the manufacturing sector as a whole dropped by almost 30 percent in January 1990. The most drastic decreases were

recorded in industries turning out consumer goods: the output of the food-processing industry fell by 41 percent, that of light industry by 33 percent.[3] Industries producing intermediate goods recorded a lesser decrease in output; this was clearly due to the lag in effect from retail to wholesale sectors—the recessionary effects in those industries were merely delayed, not avoided. The costs of such stabilization (particularly the lowered living standards and the decline in manufacturing output) have given rise to lively disputes among economists. We turn now to a critical assessment of some of their opinions.

Alternative Explanations for the Output Drop

Since its very beginning, the stabilization program has come under serious attack from various groups of economists both at home and abroad. The main charge against it was that it would cause a considerable fall in the standard of living and in real wages as well as a fall in the output of the manufacturing sector. Some arguments against the program are briefly summarized below. Although we do not share the view that the program itself should be corrected in order to remedy the situation, it seems important to emphasize that a clear understanding of the process of transition that is taking place in East European economies is important. The Polish situation seems to provide a useful ground for reaching such an understanding and formulating effective policies. It is, however, difficult to find a common interpretation of the Polish situation. Economies undergoing the transformation process from a system marked by hyperinflation, price distortions, and severe shortages to a properly functioning market system must solve simultaneously two fundamental problems. They must stabilize the macroeconomic situation (that is, break hyperinflation), and they must introduce the proper institutions, mechanisms, and rules indispensable to a market economy. The two tasks may to some extent be contradictory, at least in the short term, but it is crucially important that this contradiction be resolved. Before we elaborate our own explanation for Poland's recessionary phenomena, let us give some examples of the opinions of the critics of the stabilization program.

Early in 1990, Dr. S. Gomułka advanced a proposition that the

current recession in Polish manufacturing output was caused, in principle, not by a decrease in aggregate demand but by revolutionary changes in the internal composition of demand generated by price liberalization and restructuring. He has characterized that process as a "corrective" or "structural" recession.[4] Subsequently Dr. Gomułka apportioned the responsibility for the decline of output, into supply-side factors and demand-side factors.[5]

A different position was taken by two Italian economists, Professor G. P. Caselli and Professor G. Pastrello. They claimed that the decline of output was caused by three fundamental deflationary impulses operating on a macroeconomic scale: a drastic drop in real wages, a decline in investment activity, and the budget surplus.[6] A similar stand was taken by many Polish analysts, the first among them being Professor K. Łaski, who has undertaken a critical assessment of the stabilization program in terms of the Keynesian concept of effective demand.[7] Yet other economists maintained that the rapid and sizable increase in the private importation of consumer goods tended to "crowd out" domestic manufactures that were, in general, of inferior quality and often more expensive.[8]

None of these critics provides a satisfactory explanation of the dramatically changing macroeconomic situation that exists under tough stabilization measures, although each draws attention to some important, if partial, aspect of it. They and several other critics typically base their judgment on macroeconomic data (for instance, aggregate demand, total manufacturing output, and statistical averages pertaining to longer periods). Behind their arguments is an implicit suggestion that any apparent "disaster" brought about by the stabilization program could easily be corrected and the loss of output easily recovered once the macroeconomic policies were properly modified. Such modification is, according to these arguments, both possible and desirable.

The Polish stabilization program triggered responses from various economic agents: individuals and households, farmers, and industrial producers. Particularly important for the present analysis was the reaction of the SOEs that supply the bulk of manufactured goods to the market. All these agents had a considerable amount of lead time in which to take precautionary measures against some of the effects of the

stabilization program, including particularly the amassing of foreign-exchange-accumulated deposits and the hoarding of raw materials and other inputs for processing. Critical observers and analysts of the stabilization program typically discount such measures, in spite of their often significant role in explaining the economic trends. In our discussion we will attempt to provide a more specific and disaggregated argument that takes into account the behavior of economic agents.

Refutation of the Mainstream or Aggregate Approach Explanations

According to official statistics, the manufacturing output of the state sector of the Polish economy fell by almost 24 percent in 1990, resulting in the decline of gross domestic product by about 12 percent.[9] Normally, when observing a regular recessionary trend in a given economy, one is tempted to argue that the causes of that recession could have been operating during the entire period in question. In Poland, however, the real decline in manufacturing output in 1990 occurred in a single month: January. It continued briefly into February, but for the remainder of the year manufacturing output was largely unchanged from the level reached during January and February and even rose slightly in the second part of 1990. Whatever prompted the decline can be pinpointed in events that occurred only in January. In considering the remainder of 1990, the whole problem should be reformulated: Rather than seeking causes of a recession that did not take place, we should be trying to ascertain the impediments to a renewed growth of output.

This approach makes it possible to draw the first important conclusion of a methodological nature: The causes of the fall in output may be found in an analysis of the monthly changes that occurred in the various sectors. Aggregated data covering the whole year are insufficient and misleading, due to changes that occurred over time in the output of sectors and their product lines. Official Polish statistics do not yet provide data sufficiently detailed to make such analysis. Hence our own analysis of this output fall is only preliminary. Ideally it would

be bolstered by detailed data for monthly breakdowns of the output trends prevailing during 1990, for specific product lines and even for specific enterprises. Aggregated data indicate that sales of the industrial output of SOEs had decreased by a few percentage points in February 1990, but by March 1990 it had ceased falling and subsequently remained fairly stable. The difference between the value of output in January 1990 and that for the entire year was caused chiefly by the declining of output during the second half of 1989. The SOEs were in recession well before the stabilization program was launched. The program only confirmed their self-destruction.

In contrast, the output of the private sector was estimated to have increased over the first half of 1990 by 2 percent and over the entire year by some 8 percent.[10] The contribution of the private sector to manufacturing output was insignificant although its share, measured in current prices, rose from 7 percent to 8.5 percent during 1990. Those data lead us to conclude that the factors responsible for the decline in output were operating mainly during the initial stages of the stabilization program and affected only the state sector, which dominated the whole economy. We should therefore review more thoroughly the specific circumstances prevailing in that sector during January 1990.

A hypothesis was advanced that a major cause of the fall in output was the increase in competitive imports, particularly those brought in by private entrepreneurs. This proposition can neither be rejected nor proved on the basis of official statistics. To test it, one should have at hand a monthly breakdown of the commodity composition of the imports purchased for hard currency. But, as many private imports are not registered (and not taxed), precise judgments are not possible. Hence one may only formulate various hypotheses about their crucial role in explaining the fall in output during January 1990.

In one respect the role of imports is clear. The scale of the currency devaluation announced on January 1, 1990, was very large indeed; some claim that it was clearly too large. Besides, imports were very heavily taxed, carrying a 20 percent tariff and a 20 percent turnover tax on the customs value. As a result, the cost of a dollar in import transactions was 40 percent more expensive than the dollar earned in export transactions.[11] Given that discrepancy, it is unlikely that private importers of consumer goods, most of whom were working on a small

scale, were in a position to buy enough to reduce sales of goods made in the state sector, at least to the extent that the "supply shock" theories would have us believe.

Another more serious simplification made in a "mainstream approach" concerns the implicit neglect of the state of the Polish economy before the stabilization program was introduced. That approach would have us believe that economic life started on January 1, 1990, along with the introduction of the stabilization program. Every economy is characterized by a certain inertia. Economies of so-called real socialism have proved to be particularly inelastic. Events that took place during the first months of the stabilization program were profoundly influenced by events that were taking place in the last quarter of 1989. During 1989 manufacturing output dropped by a range of 3 percent (and investments by 2 percent). Nevertheless, the output of the private sector increased substantially, by about 30 percent.[12] In the state sector of the Polish industry, a recessionary tendency along with an intensification of hyperinflation was particularly pronounced during the second half of 1989. It is important to emphasize that such recessionary trends have characterized the other post-socialist economies, notably those of Bulgaria, Romania, and the former Soviet republics. The collapse of the communist economy itself generated its own recessionary dynamics, which were intensified by an increasing shortage in the market engendered by expectations of inflation.

We may conclude that the macroeconomic tendencies caused by the hyperinflation prevailing in the second half of 1989 and the breakdown of the command economy have revealed profound economic disequilibria. We enumerate only the most significant as they affected Poland.

- The budget deficit financed by monetary expansion increased.

- State-owned enterprises recorded an unprecedented growth by 250 percent during the fourth quarter of 1989 alone in profits, a growth rate that was almost equal to inflation; real incomes of the population as well as their real savings declined substantially

during the fourth quarter of 1989; demand for money has, however, declined even further.

- The volume of the manufacturing output available on the market declined during the second half of 1989.
- The export surplus for the whole of 1989 was several times smaller than it had been during the previous year.
- Investment activity declined by about 2 percent.

In the light of those disequilibria, the theory that the fall in output was provoked by a supply shock does not, to our mind, withstand scrutiny. In both January 1990 and in subsequent months, enterprises invoiced most of their expenditures on inputs in old prices, those paid for raw materials that had been purchased in the previous year, that is in 1989, because they were still using up their accumulated stocks of those inputs. Such expenditures constituted anything between 65 percent and 75 percent of the total costs. For SOEs the cost-price dynamic lagged—by at least several months.

Moreover, most of the interest payments on credit for working capital (significantly reduced during 1989, it will be remembered), were, beginning with the second quarter of 1990, added to costs. From January through April 1990, fixed assets were reassessed. Thus it is only since April 1990 that SOEs have included in their total costs the significantly higher amortization charges made on the new value of their fixed assets. In other words, the price revolution and its effect on costs had not reached the SOEs by January or even February 1990. Similarly, explanations of the fall in terms of the budgetary surplus, of the foreign-trade deficit, or of a fall in investments, do not hold. In January and February 1990 the state budget had a surplus. Foreign trade was slightly in the red in January, but the decline of 9 percent in the volume of exports and the increase of 10 percent in the volume of imports since January 1989[13] does not fully explain the magnitude of the drop in output that occurred in January, because the share of foreign trade in the national income was rather insignificant. The 2 percent decline in investments during January 1990 was really insignificant and certainly would not cause any marked fall in output,

especially when the drop occurred in those sectors turning out consumer goods, chiefly food processing and light industry.

Precautions Taken by the SOEs before the Stabilization Plan Was Implemented

Aware of the stabilization program, virtually all the sectors of the Polish economy made some preparations in order to safeguard their interests and positions. Most important for the present study was the reaction of the SOEs, whose share in industrial output and sales was and still is overwhelming. Because the stabilization program was announced in a democratic debate around mid-October, well before its start, the public in general and SOEs in particular could ascertain clearly and with adequate lead time what they could expect: A drastic devaluation of the Polish currency, a rise in interest rates, a marked increase in the prices of basic industrial inputs, energy, and fuel, and dramatically rising amortization levels caused by a marked upward reassessment of the value of their fixed assets. It was well-known that the very first phase of the stabilization program would consist of so-called corrective inflation. SOEs and households were already motivated by inflationary expectations that were being driven by the hyperinflation at the time. Thus, it was generally assumed that prices would be rising significantly faster, once the program began, than they had been rising during the months immediately preceding the program. Price hikes for those reached: 34 percent in September 1989, 55 percent in October, 22 percent in November, and 17 percent in December.[14] Let us briefly summarize the salient features of the defensive measures that were taken just before the program was implemented.

- SOEs stockpiled inputs, materials, and so on, so that they could take advantage of the lower prices then prevailing. During 1989 the ratio of inventories to the value of output (in current prices) rose from 60 percent to 246 percent; three-fifths of the overall value of inventories consisted of materials for processing.[15] A socialist enterprise facing shortages of material for

production customarily concentrates on accumulating as many inputs as possible. During the fourth quarter of 1989 such stockpiling accelerated. SOEs also maximized the foreign exchange savings deposited in their accounts in Polish banks and, illegally, in foreign banks where they managed to hide considerable sums, estimated to have been around U.S. $1 billion,[16] beyond the reach of official accounting. All in all, at the end of 1989 only 28 percent of the registered financial stock held by SOEs consisted of domestic currency; the rest was held as foreign exchange.[17]

- Because of the scheduled increase in interest rates, manufacturing enterprises accelerated their repayment of credit obtained earlier. As a result, the share of their total working capital that these SOEs were themselves providing increased, thereby reducing the cost-of-credit component in the overall cost of production. This lower level of credit to finance working capital was obtained thanks, inter alia, to a mutual indebtedness among individual SOEs. Increasingly the SOEs were delaying repayment of their debts and retaining those sums as part of the working capital.

- Wholesale prices for industrial inputs and finished products were manipulated as the SOEs did their best to maintain and enhance their traditionally very high profitability so that they could accommodate the planned increases in the price of fuels and energy. During the last four months of 1989 the ratios of gross profits to costs were: 28, 30, 35, and 45 percent, respectively. In selected industries the ratio was even higher: 64 percent for food processing in December 1989, 94 percent for light industry, and 150 percent for the engineering industry.[18] This profitability was the result of skyrocketing wholesale prices, the growth rate of which exceeded even that

of retail prices, which grew by 144 percent in October, 135 percent in November, and 138 percent in December.[19]

- The last months of 1989 witnessed a marked drop in exports by the SOEs, which were anticipating the devaluation of the domestic currency scheduled for January 1, 1990. Importing SOEs, in contrast, did their utmost to increase their imports as much as possible.
- To enhance their profitability, SOEs began delaying the payments of their taxes. The Polish economy faced a classical Tanzi effect: Because of hyperinflation, taxpayers did their best to postpone their tax payments, and the real value of fiscal revenues was dropping in concert with the rising inflation. At the end of 1989, the value of unpaid taxes exceeded 17 percent of planned fiscal revenue.

By the end of 1989, the pattern of household expenditures was consistent with an economy marked by severe shortages and hyperinflation. The populace strived to get rid of money, buying up goods and foreign currencies. In addition, a factor frequently apparent in such circumstances but usually overlooked in analyses and discussions was at work. People expecting price hikes tend to spend as much as they can on food and basic consumer goods, such as apparel or shoes. In an economy of shortages, households also tend to keep as much food, including perishables, as possible in their pantries. During December 1989—the month preceding the stabilization program—households were disposing of any extra personal income by increasing their stocks of foodstuffs. Accurate statistics are lacking, but economists, including the present authors, and laymen alike would bear witness to that.

Reactions of the SOEs under the Stabilization Plan

Retail trade in the domestic market for consumer goods fell substantially in January and February of 1990—the result, in our judgment, of

the rather peculiar behavior of the trading enterprises constituting the state trade network, behavior that also affected wholesale trade. It will be remembered that, at the beginning of 1990, SOEs in Poland still dominated domestic trade, which did not begin to be privatized until the second quarter of 1990, the process accelerating during the second half of that year. In professional discussions on the reasons for the fall in output, the crucial role of the state trading system in exerting a decisive impact upon short-term economic activity in the consumer goods sector is often neglected. It was this trading system that transmitted domestic demand to industrial producers: Unless it is quantitatively specified in the form of commercial orders, domestic demand remains undefined.

We shall discuss now the impact of the behavior of the state trading SOEs on sales recorded in January 1990. At the beginning of 1990, commercial banks, following the decision of the Polish National Bank (that is, the central bank of Poland), increased the nominal rate of interest on short-term credit to between 38 percent and 65 percent per month. At the same time, the government announced that the rate of inflation during January would remain at around 45 percent. Faced with such an announcement, the trading SOEs concluded that their indebtedness to the banks should be significantly reduced, as the interest rates were making the cost of credit too high. (It will be remembered that at the time more than 80 percent of Poland's domestic trade was financed by bank credit; and that for a long time the real rate of interest was negative; in December 1989 it was minus 19 percent!) The trading SOEs took into account the nominal rate of interest and the rate of inflation expected by the government and then assumed—disregarding the proclamations of the Polish National Bank—that these rates would remain stable for several months. (That conclusion was drawn from several unofficial discussions the present authors had with a number of representatives of state trading companies.) The trading SOEs cut in the requirements for credit also reduced the level of new orders they were placing with producing SOEs and delayed the implementation of orders placed earlier. Available statistical evidence (some of it, unfortunately, obtained indirectly)[20] shows that the situation prevailing in January 1990 could be described in the following way. Trading SOEs cut the volume of orders for supplies of consumer goods

from the industrial SOEs by about 50 percent.[21] Statistical data make it possible to estimate that, during January 1990, the volume of the retail trade declined by 45 percent.[22] The difference between the two indicates that the trading SOEs compensated for the shortfall with imports or by drawing on their own inventories.

In the industrial sector, the difference between the declining volume of sales to the trading SOEs and the declining sales of consumer goods, equaling according to our own estimate 38 percent,[23] had to be compensated for by increased exports and direct sales by those SOEs. (This aspect will be dealt with later on.) All of a sudden the industrial sector was faced with the domestic demand barrier—the very first such experience in forty years! This barrier had already begun to operate by the beginning of January 1990, that is, even before retail prices began rising. (Prices of foodstuffs rose most dramatically during the second week of January 1990.)[24] Therefore, it can be concluded that the decline in demand that was observed during January 1990 and was caused by the trading SOEs was greater than the decrease in demand occasioned by the concurrent 42 percent cut in purchasing power. The demand barrier caused by the trading SOEs generated a stock of manufactured goods that the industrial SOEs suddenly found unsalable. Thus they were forced to trade on their own initiative, outside the official network. This they did. On the streets of towns and cities all over Poland factories were making sales to the public directly from their trucks. Had they not resorted to such measures, the industrial SOEs would have experienced a much greater decrease in their income in January and February 1990.

With the passage of time and a rising trend in "corrective" inflation, the real rate of interest turned out to be negative. Official data show that the rate of inflation during January 1990 reached almost 80 percent.[25] This is, however, an underestimation: in the official assessment an average-price index is used (a ratio of the average price level for a given period to the average level in a previous period). To make a more accurate estimation of the real rate of interest it would seem more appropriate to use a "first-to-last" index, that is, an index that expresses the ratio of the price level at the end of a given period to the price level at the end of a previous period. (Lack of space prevents us from discussing here the reasons for the divergence between the

average and the point-to-point price indexes for January and February 1990.) According to the point-to-point index, retail prices during January 1990 rose by almost 106 percent above the level prevailing at the end of December 1989.[26] Calculations based on that index would show the real rate of interest to be strongly negative: between minus 34 percent and minus 21 percent. By then the trading SOEs were eager to increase their orders and to finance them through bank credit (the more when, in February 1990, the nominal rate of interest was significantly reduced, to between 20 percent and 23 percent). It was, however, at this juncture that the domestic demand barrier began to be felt. That barrier was generated by several factors, but perhaps the most significant was exactly that "corrective" retail price increase imposed by the SOEs.

At this point, a new aspect of the peculiar nature of the SOEs' behavior became apparent. For a number of months there was the possibility of free price setting by the SOEs. It is clear (from the authors' own observations and from empirical investigations) that both the industrial SOEs (responsible for wholesale prices) and the trading SOEs (responsible for retail prices) significantly overestimated the price levels they would be desiring in January. Wholesale prices (applicable to industrial output as a whole) increased during January, being almost 110 percent higher than they were in December 1989.[27] (This number is derived, unfortunately, from the average index, as a point-to-point index is not available.) This increase is significantly higher than the average retail-price increase. In light industry and food processing—sectors that are particularly relevant to the present study—wholesale prices increased even more, by 159 percent in the food processing industry, 159 percent in the textile industry, 135 percent in the clothing industry, and 153 percent in the leather industry.[28] Such price hikes contributed to the enormously improved gross profitability of those sectors. In January 1990 the profitability of light industry as a whole reached 38 percent, of the food processing industry, 32 percent, and of the textile industry, a record 75 percent.[29] The fact that the profitability of those industries was somewhat higher in December of 1989 notwithstanding, such extraordinary gross profits make it difficult to maintain that Poland faced a supply shock.[30]

Naturally one might ask: What were the sources of such enormous

profitability? First, a "reserve" of profitability that was inherited from the end of the previous year (that is, 1989) must be taken into account. Second, the SOEs' estimation, at the time, of costs and profit margins was based on a perception of their own financial needs that accounted for the expected price increases of the factors of production. Third, and this is of crucial importance, the SOEs, out of self-interest, forecast that their suppliers would dictate significantly higher price increases than they actually did.[31] (For example, according to information available to the authors, the SOEs projected the exchange rate of the zloty between thirteen thousand and fourteen thousand to the dollar, because that was the level postulated by the Ministry of Foreign Trade. Actually, the exchange rate was significantly lower, being 9.5 thousand zlotys to one dollar.) Thus, the SOEs overestimated their costs and their profits and the rate, and they disregarded the demand barrier. As a result, the actual level of profitability turned out to be significantly higher than that planned even though the level of output was significantly lower. Suspect accounting practices are nothing new; the SOEs were simply adapting a well-established procedure. What was new, however, was the demand barrier. Hitherto SOEs had never faced any limitation whatsoever in demand. It was not a supply shock that the SOEs were facing in January and February of 1990. On the contrary, they had been prepared for several months to absorb even higher price increases for the factors of production. It was a true demand shock that was the real surprise at that time. Subsequently in 1990 wholesale prices increased only moderately, essentially because the demand barrier was limiting sales significantly below production capacities. Some SOEs (for example, in the textile industry) even tried to lower prices in order to stimulate demand, but their efforts were both modest and insufficient. Other SOEs did nothing to reduce wholesale prices; in the food processing industry over the first half of 1990 they grew by about 5 percent per month.[32] The attitude of the trading SOEs was similar: The decline in demand did not persuade them to lower their profit margins. On the contrary, the average mark-up rate in trade in manufactured goods rose during 1990 and 1991. The SOEs believed that the stabilization policy could not be maintained; besides, they expected that, after February, the rate of inflation for the rest of 1990 would remain stable.

We can now conclude with our main proposition concerning the causes of the recession during the first months of the stabilization program. The sales crisis that occurred in January of 1990 with the drastic fall in trade was caused by the behavior of state-owned trading enterprises; subsequently, it was the price policy instigated by the producing SOEs that was responsible for the continued low, recessionary level of output. Producing SOEs, having forcibly increased their wholesale prices securing thereby high profit margins, were extremely reluctant to discount prices even when confronted with a demand barrier. In the private sector output has gone up. Various unofficial estimates and observations (the private sector is not subject to routine investigations by the Central Statistical Office, as are the trading SOEs) show that price increases in private trade were smaller by at least a half throughout 1990 than the price increases generated by the trading SOEs.[33]

A few economists have acknowledged that SOEs increased their prices excessively[34] but have tended to underestimate the recessionary impact, arguing that the drop in input was due mainly to the excessively rigid monetary, as well as fiscal, and incomes policies adopted by the government in its stabilization program, particularly during the first quarter of 1990. Even Dr. Gomułka, a senior adviser to Mr. L. Balcerowicz, shared that point of view. The money supply (M3) had, according to Dr. Gomułka's argument, been planned to grow nominally, during the first quarter of 1990, at the rate of the planned price increases, that is, by 75 percent. That would lead to a real decline in the value of M3 of at least 23 percent—and eliminate excessive liquidity. In fact, during the period under study, prices actually increased by 133 percent; as a result, the fall in the real value of M3 turned out, unexpectedly, to have been significantly greater, reaching 50 percent. In consequence, the fall in aggregate demand was also excessive.[35] According to the argument, the price and profitability levels set by the SOEs are considered exogenous, leading most professional economists to denigrate the money supply policy followed by the Polish National Bank. This criticism is often extended to cover the whole period under study here (1990–91) and not only the initial months of the stabilization program. We argue, however, that it was the excessive price increases caused by the SOEs—economically

unjustified but securing them a very high profitability and economic comfort at the expense of output growth—that were fundamentally responsible for the recessionary trend and also for the miscalculations about the real value of M3. It must be remembered that output fell exactly and entirely during the period of "corrective" inflation. Subsequently, along with a generally declining trend in price increases, production tended to be stable or even to grow slightly. This effect is exactly contrary to that generated when market economies apply stabilization programs. In such economies, output typically declines during periods of inflation.

Some economists do admit that the SOEs' profits were extraordinary and excessive, but their explanation is simplistic, attributing them to the SOEs' monopolistic position. Our argument is that the reasons for the SOEs' actions must be sought at a deeper level—in their very ownership structure.[36] To dismiss the argument that the excessive price hikes experienced in Poland during the stabilization program were caused solely because the SOEs were monopolies, it would suffice to note that the price policy was followed by virtually every producer, monopolistic or not. For example, even in light industry, where most sectors do not have a monopoly, price dynamics were relatively high.

A nearly total disregard for the falling demand was the classic, time-honored attitude of practically all the SOEs operating in the old system: small turnover = high profits. Faced with a new situation caused by the stabilization plan, neither type of SOE, trading nor producing, saw fit to change although the former did show a greater interest in searching for credit when the real rate of interest declined in subsequent months.

Confronting the domestic demand barrier, an entirely new phenomenon, these trading SOEs were not induced to act as they might have in a market economy by lowering the trade mark-ups to reduce retail prices.[37] It could be argued that these SOEs were merely drawing from their previous mistakes. It will be recalled that, when the stabilization plan began, in January 1990, SOEs used the government's price projections as a guideline for their own price behavior. Learning from that mistake, trading SOEs—like the producing SOEs—started to treat official price projections as a signal that the

actual price increase could, in fact, be significantly higher. It could thus be argued that, if the official price projections made by the government had been higher in the first place, the SOEs' actions would have created still sharper price swings!

The SOEs' profits were further enhanced by the inflationary gains obtained when their surplus inventory of various inputs that had been accumulated earlier were sold at new, higher prices. These inventories—always excessive in an economy of shortages—became even more burdensome once that economy started to collapse. It was only in trying to sell off these inventories that the SOEs made some attempt to adjust to a new, market-driven environment.

Additional Causes of Stagnant Output in 1990 and 1991

In investigating the factors other than price that were responsible for stagnation of output during the rest of the Polish stabilization period, that is, in 1990 and 1991, let us first deal with the consumer market in which a number of phenomena might be observed.

- The fall in output recorded in January 1990 meant that the SOEs were unable to pay out wages and salaries at the level set by the indexation coefficient (0.3). Hence, the incomes of their employees during February and particularly during the subsequent months were smaller than might be inferred from the indexation coefficient itself. To meet their obligations the SOEs disposed of a considerable reserve during the first half of 1990.[38]

- Since February 1990 a clearly lower inflation rate significantly dampened the inflationary expectations. As a result, household savings—seriously eroded by inflation in the second half of 1989—tended to recover. The trend strengthened by making the deposits as the domestic currency became more attractive. By March 1990 the real rate of savings became positive and helped to step up the demand for money.[39]

- The greater demand for money was stimulated by the elimination of shortages, one consequence of which was a decline in demand for foodstuffs, previously purchased in excess partly because manufactured consumer goods were not widely available.

- Without the threat of shortages, the householders no longer felt pressed to maintain their stocks of foodstuffs at the level that had prevailed in the period of "corrective" inflation.

- The demand for food (which was already taking 50 percent of a given household's expenditure) also declined when prices rose because food-production subsidies were reduced. One important reason for the smaller demand was the elimination of the practice, popular among peasants, of purchasing cheap food for use as cattle feed.

- By mid-1990, the zloty appreciated in real terms. Imports, most brought in by private citizens, were crowding out domestic production of foodstuffs, clothing, household electronics, and so on, that were considered by the population as more expensive and of an inferior quality. This trend intensified during 1991 and will be discussed more extensively below.

Most of the phenomena we have described are typically in evidence when a policy of fighting hyperinflation and eliminating shortages and major price distortions is implemented. Hence, in Poland, most of the deficiencies that generated excessive consumer demand—a hallmark of the economy of real socialism—have been remedied.

The same is true—with a certain time lag—of the demand for industrial inputs and factors of production. In the past, state-owned enterprises have typically bought up excessive quantities of any temporarily available input and factor of production, for fear of future shortages. Over the course of 1990, the real value of stocks of materials held by enterprises was lower than it had been during 1989, the

fall corresponding to shortages of most of the raw materials and other inputs. Investment demand, too, was significantly reduced because inflation made the domestic investment credit unprofitable. All in all, during 1990, the level of investments dropped by 8 percent, although purchases of machinery and equipment made by the SOEs declined much further, by 18 percent.[40]

The Impact of Long-term Influences on the Polish Reforms

So far our discussion has concentrated on short-term factors operating in 1990 and hampering the recovery of production. Long-term conditions contributing to the recession were already entrenched, but during 1990 (and particularly during the first half) they were dampened by short-term forces. Over time, the long-term conditions regained their former strength.

There is ample empirical evidence that the SOEs, dominated by self-interest and strongly influenced by the trade unions, were not capable of increasing the level of output economically or efficiently. We venture to propose that the SOEs' level of output during 1990 was quite normal. In spite of the dramatic decline in output in January 1990, the economic survival of the SOEs was not, in fact, ever imperiled. Bankruptcies—although expected—did not materialize. Instead the SOEs made use of their considerable reserves—both financial (particularly those held as foreign exchange) and material (goods accumulated back in 1989).[41] Those SOEs that really did face financial trouble solved it by resorting to delays in paying their taxes and their suppliers. In turn the creditors have exerted very little pressure on the debtors to service their debts in time.

Throughout 1991, the average profits fell considerably. During the first five months of 1991, the average gross profit rate fell to 8 percent; over the entire year it dropped still further, to 4.8 percent. A number of sectors fell deeply into the red, including, in particular, transportation, minus 10.8 percent; iron and steel, minus 2.4 percent; light industry as a whole, minus 8.2 percent (and among its components, the textile and leather industries fell to minus 13.1 percent and minus 8.1 percent respectively).[42] The principal reason was the rise in material

and labor costs, the SOEs taking no concomitant cost-reducing measures. During 1991—in spite of the lower level of output—real wages increased by almost 4 percent, thus increasing the ratio of wages to profits. The pronounced fall in inflationary profits (discussed at the end of the previous section) and the exhaustion of stocks of inputs hoarded earlier also lowered the SOEs' profitability. At a deeper level the economy has been fundamentally skewed by inefficient investment. The transformation to a market economy has revealed several structural imbalances in industry, imbalances that are clear in comparison with Western economies. The pattern of socialist industrialization has established a peculiar group of misdeveloped economies in which an excessive share of the GNP has been contributed by so-called heavy industry with its consumption of energy and raw materials.

Throughout 1991 a recessionary trend also prevailed in industrial production.[43] For the year as a whole, industrial output was some 12 percent lower than it had been in the previous year,[44] the result of a decline in domestic demand coupled with the availability of competing imports from the developed Western economies. For example, the volume of imports from the European Economic Community rose by 104 percent in the first half of 1991 alone and constituted as much as 48 percent of the total imports. The importation of consumer goods rose the most rapidly—by 127 percent.[45] Strangely enough, exports of goods with a high labor content dropped, while those of goods consisting chiefly of raw materials went up.[46]

It seems important to draw attention to the fact that a renewed recession starting in the first half of 1991 did not affect all industries. This fact we ascertained by a more disaggregated analysis of the type that is normally ignored by most professional observers of the changes taking place in Eastern Europe in general and in Poland in particular. For example, during the first half of 1991, production in some industries was growing—by 5 percent in the timber industry, by 4.7 percent in the paper industry, by 4.5 percent in the food processing industry, and by 3.5 percent in the coal industry. In a still more disaggregated analysis, in which industrial output is broken down into seventy-six product lines, the output of twenty-one of the manufacturing groups was higher than it had been the year before.[47] If we come back again to an aggregated picture of conditions prevailing throughout 1991, we

observe that only the food processing industry did record a fall in output. It must be emphasized that the output of the private sector was growing all the time. Part of the private sector, which could be defined as the old one in that it had existed under the socialist regime, increased its sales during the first half of 1991 by 5.5 percent, and the private sector as a whole increased its sales during 1991 by 3.5 percent.[48] This is a further proof of our broader proposition, namely, that the Polish recession was of a structural recessionary nature, rather than of a Keynesian one.

This distinction has important long-term implications: Economically efficient growth in output should be sought in the elimination, reallocation, and profound modernization of fixed assets, rather than in the stimulation of consumer demand. The most fundamental prerequisite to such reform is the liquidation of the unprofitable state-owned enterprises and privatization of the rest. Unprofitable industries, the number of which has gone up considerably in the past two years, can be divided into two groups: those that actively drain the economy and those that only barely hold their own. According to the hypothesis posited by Professor R. McKinnon, some enterprises add no value to the economy: The proceeds do not cover even the costs incurred to generate the output.[49] That they exist at all is simply the effect of mistaken investment decisions implemented in the past, coupled with inappropriate management. Clearly, the prompt elimination of such enterprises would immediately stanch the outflow of national income. Other enterprises do not earn enough to make a profit. The liquidation of such enterprises, and of those whose profits are too low to be worthwhile, could increase the national income if resources thus released were reallocated to other, profitable ventures.

There is here no need to argue extensively that the capital equipment of most of the Polish industrial SOEs needs urgent modernization.[50] In Poland, the reallocation of fixed assets from unprofitable to more profitable ventures is, for reasons that would require a separate and detailed analytical treatment, still at the teething stage. At present we limit ourselves to pointing out evidence that the monetary and fiscal policies have not been as terribly restrictive as several critics of the Balcerowicz plan have averred. In a number of cases, both fiscal and monetary policy would seem to have been too soft rather than too hard.

For example, the index of actual taxes raised from the state sector during the first half of 1991 was only 19 percent! The situation was clearly worsening: In 1990, this same index stood at 56 percent; at the end of the first quarter of 1991 at 21 percent.[51] This incredibly low coefficient of tax collection is principally a result of a deliberate, politically motivated, decision by the authorities who are extremely reluctant to initiate and execute bankruptcy procedures.

A second weak link in the state financial policy is the banking sector. In Poland banking is still dominated by nine so-called commercial but actually state-owned banks that developed from former branch offices of the Polish National Bank. It is obvious, at least in theory, that money (credit) should be allocated to the most efficient economic uses. In practice, certainly in Poland, theoretical considerations do not count. Too often the banks are overly lenient toward their debtors, while several potentially very profitable enterprises find it almost impossible to obtain credit. Large state-owned firms are routinely treated more favorably; often, as a result of past personal relations, they can obtain credit quite easily.[52] In short, ostensibly independent commercial banks have since the very beginning been frustrating the official credit policy, financing enterprises that have lost their creditworthiness. As far as interest rates are concerned, these banks adopt the same approach as the SOEs did, upholding the principle of "small turnover = large profits." The average profit of the nine commercial banks in 1989 reached 104 percent, jumped in the first quarter of 1990 to 160 percent, climbed still further during the first half of 1990 to 173 percent, and even after the third quarter of 1990, was 163 percent. The ratio of interest on deposits, compared with interest on credit, is 35 percent, that is about half of the level that prevails in market economies.[53] In our judgment, unless these banks are privatized, it will not be possible to stop such practices and stop the banks from financing bankrupt enterprises at the expense of other, potentially profitable enterprises.

The profitability of the banks, like that of the SOEs, went down considerably in 1991. Several state-owned banks suffered a significant deterioration of their capital coefficients: the ratio of their own capital to the assets held had, by the end of June 1991, fallen below the required minimum of 8 percent. The problem was caused by the banks'

principal customers, the SOEs, some of which, being insolvent, were no longer paying at all. The financial stability of even those SOEs that were still servicing their debts seems precarious in the long term. The banks' reckless financing, in 1990, of inefficient SOEs presently took its toll.

Overall Appraisal and Conclusions

Our analysis of the SOEs' response to the stabilization program in Poland, as it was implemented in 1990 and 1991, leads us to the following conclusions.

- Two stages can be distinguished in the effect of the program on the public economic sector.

  1. The first stage lasted the whole of 1990, during which a fall in output, followed by its subsequent stabilization (and a slight rise), was caused by short-term factors, such as trade-network orders, and the impact of prices set unilaterally by the trading and producing SOEs. Had the producing and trading SOEs pursued different pricing and ordering policies at that time, the level of output could have been higher. Nonetheless, no matter what the SOEs' policy, that level could not have reached the one obtained during 1989, principally because of the fall in domestic demand resulting from the elimination of shortages and hyperinflation and a major reduction of subsidies.

  2. The second stage started at the beginning of 1991 and was marked by a new recession caused principally by long-term factors: excessively high and constantly rising costs of production and a supply of products that were inferior in quality and unable to compete against imports.

- Our approach to an appraisal of the stabilization program and to the behavior of the SOEs is thus rather and crucially different from that taken by most Polish economists and a considerable number of Western observers. We are searching for the factors ultimately responsible for a given dynamics of production. Our study leads us to seek these reasons in the actions of the SOEs. Other analysts tend, rather uncritically, to throw the main burden of responsibility upon the financial policy of the government, apparently considering it to have been too restrictive.

- Our observations have provided a different view of the financial policy that the Polish government followed during 1990. We find that the financial, and particularly the monetary policy was excessively expansive during the third quarter of 1990 and, to some extent, during the fourth quarter. By the end of 1990 and in 1991, particularly during the second half, the policy had become too lenient. It could, perhaps, have been responsible for unnecessary fluctuations in the level of output over a short term; but neither financial nor monetary policy was directly responsible for the fall in output during January 1990, nor could they have led to a recovery to the initial levels prevailing in 1989.

- It is widely held that throughout the period analyzed in this study the financial policy of the Polish government was too restrictive. This opinion requires some correction. Such views are oversimplified, if not entirely wrong, for at least two reasons.

The first reason is that the Polish government's financial policy cannot, to our mind, be appraised independently of an analysis of the level and trend in concurrent market prices or without the profitability rates generated by the behavior of the SOEs being taken into account. It is true that government financial policy should be able to influence

the nominal level of the money supply (M3) in order to control the real supply. Such role could, however, be played effectively only if the assumptions about what constitutes an appropriate pattern of price and profitability trends are reasonable. Otherwise, decisions about the nominal money supply would only passively reflect the price and profitability trends shaped by the SOEs.

The second reason is that the standard opinion tends to neglect, on the one hand, the chronically escalating fiscal arrears of a considerable—and increasing—number of SOEs and, on the other hand, the commercial banks' continued financing of insolvent SOEs. Moreover, the effects of the financial policies of the state are being further diminished by a mutual "interindebtedness" among the SOEs, which are linked by cooperative and trade ties. In fact, the government's credit policy tends to increase the amount of money circulating in the economy.

In contradicting the majority opinion, we would point out that the effect of the financial policy has, because of the SOEs' pattern of action, turned out to be softer than Dr. Balcerowicz had expected and softer than one suggested by the Central Statistical Office and Polish National Bank after they had made an analysis of the macroeconomic aggregates. The single most important weakness of the financial policy in force during the period under study was not its excessive restrictiveness but *its microeconomic inselectivity*. Credit and fiscal relief could be obtained by virtually anyone and particularly easily by big SOEs. Conversely, under that policy, the effects of eventual credit restrictions (when they were applied at all) would be felt indiscriminately by virtually everyone. If there were any selectivity whatsoever, then it had nothing to do with a given enterprise's economic efficiency. It could, therefore, be argued that the financial policy has been both excessively restrictive (for potentially efficient SOEs) and excessively generous (to unpromising SOEs). In other words, it is indeed the fault of the government's financial policy that inefficient SOEs still exist. They have survived—and still do—at the expense of other, potentially economically viable SOEs.[54] It is in this—and only in this—sense that we can agree with the contention that government financial policy has indirectly contributed to the stagnation of output.

Our last conclusion will come as no surprise: Perhaps the best way

of limiting excessive price increases over the long term would be to set up an economically normal, commercial mechanism for eliminating inefficient SOEs through bankruptcy.

Final Observations

To formulate an overall judgment let us compare the sales crisis in the Polish economy with an equivalent phenomenon in a market economy. By such comparison, we aim to dispel any additional misunderstandings in the interpretation of the Polish recession.

- It has been commonly held that Poland experienced a supply shock that caused the dramatic fall in output during January 1990. Such shock did indeed occur but not until several months later. The SOEs were feeling the supply shock, by and large, at the time when the output was growing again. Besides, the SOEs expected that shock—they were prepared to face an even larger one—and had for more than six months been accumulating financial and material reserves to cushion the effects of rising costs and ensure their own economic survival. It is thus inappropriate to consider the price trend prevailing during January 1990 as "corrective" inflation. And, because it resulted from the precautionary measures taken by the SOEs, rather than from supply factors, it also seems appropriate to describe the trend as "anticipatory" inflation.

- Our next important observation concerns the problem of a fall in demand. An approach to this problem must be disaggregated. Overall, the fall in demand has been more apparent than real. In the period under study, exports have grown and several industries in the public sector—and the entire private sector—have recorded increases in output. Consumer imports

and retail sales have gone up considerably. Moreover, there is no substantive ground for applying to the case of the Polish recession the Keynesian theory of effective demand. For Keynes, a sales crisis is the result of too low a propensity to consume and to invest; besides, the two propensities are exogenous to the enterprises endangered by such a crisis. The Polish economy has indeed faced a drop in demand but it has been a drop in consumer demand in particular. The short-term cause was, again, the pricing and ordering policies followed by the trading and producing SOEs. Over the long run the decline continued because the SOEs were economically passive: They accepted the demand slack and made no attempt to reduce their costs or improve the quality of their output, even when faced with the breakdown of the East European market that had formerly been safeguarded by the institutional arrangements of Comecon (the Council for Mutual Economic Assistance). In that sense, the sales crisis in the Polish economy has been endogenous in the period under study.

- The previous point is also relevant in a consideration of the impact, upon the depth and course of the recession, of changes in the demand composition. Those changes have, however, not been beyond the control of the SOEs: It is those very SOEs that have been responsible for the escalation in prices that caused domestic demand to fall.

- It is widely believed that a drop in demand is inevitable if inflation is to be controlled. This proposition was formulated in the light of stabilization programs implemented by the less-advanced market economies, particularly those in Latin America. In Poland, output fell during periods of hyperinflation and that of "corrective" inflation. Attempts to control inflation did not, in actual fact, start until February 1991.

Since then, industrial output has not decreased any longer. The contention that there must be a trade-off between lower inflation and lower output does not always hold. One of our major aims in writing this paper has been to refute its applicability to Poland.

NOTES

1. For the analysis presented in this paper, we derived data on stabilization measures and their effects mainly from the official statistics of the Central Statistical Office of Poland (CSO) and from background research materials prepared for the Economic Council to the Prime Minister of the government of Poland. Some data are quoted from indirect, but predominantly Polish sources. For the interpretation and assessment of the Polish government's fiscal program, our primary and secondary sources number in the hundreds, if not in the thousands, and include all the previous publications of the present authors and of the International Center for Economic Growth (ICEG) in San Francisco, among them, R. Frydman, S. Wellisz, G. W. Kołodko, "Stabilization Policies in Poland: A Progress Report," in E. M. Claassen, ed., *Exchange Rate Policies in Developing and Post-Socialist Countries* (San Francisco: ICS Press, 1991); J. Kulig, "Which Way to the Market Economy: Through Stabilization or Growth Acceleration?" in *The European Journal of Development Research* (London), 2, no. 2 (December 1990) 147–62; A. Lipowski, "Kampf gegen die Hyperinflation in Polen 1990," in *Das Balcerowicz-Programm: Konzept, Realisirungsschritte, Zwischenergebnisse* (Nuremberg; IGW, 1991), 33–50; A. Lipowski and K. Szymkiewicz, "L' Evolution des prix et l'effondrement de la production dans les secteurs d'etat en Pologne: 1990–1991" (Paper delivered at the URA-CNRS Conference, Barcelona, 13–17 November 1991).

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10. Central Planning Office, Warsaw, "Information Concerning the Course of Economic Processes in Poland during 1990" (in Polish) (background research material prepared for the Economic Council to the Prime Minister of the Polish government, 1991, mimeographed), 1–2.

11. Central Statistical Office, *Foreign Trade of Poland: January–December 1990—Final Data* (in Polish) (1991), 7–13.

12. J. Eysymontt, "Toward an Assessment of the Situation of Selected Markets against an Appraisal of the Overall Economic Situation in Poland during 1989" (in Polish) (Warsaw: Stefan Batory Foundation, Program of Economic Research in Central and Eastern Europe, March 1990), 61.

13. G. W. Kołodko, "Stabilization, Inflation and Pro-Market Transformation—The Polish Experience" (in Polish) (Paper presented at the conference: Financial Policy—Stabilization and Transformation, Wilga, Poland, 24–26 April 1991), 10.

14. Central Statistical Office, Warsaw, *Statistical Bulletin* no. 8 (1991), 15 (in Polish).

15. B. Stolarek and E. Kott, "Socialized Enterprises" (in Polish) (in "Report on the Financial Situation of the State during 1989," Warsaw: Institute of Finance, 1990, mimeographed), 100.

16. Although unofficial, and so far unpublished, this information is reliable.

17. Central Statistical Office, Warsaw, *Statistical Bulletin* no. 1–3 (1991) (in Polish).

18. "Information on Changes in the Level of Profitability in the Industrial and Construction Sectors, January–December 1990" (in Polish) (Central Planning Office, Warsaw, March 1991, mimeographed), 2. In Polish statistics the Western concept of profit rate does not apply because, in the SOEs, the value of capital is an unknown number. Instead, various profitability rates not often used in the West, such as a ratio of financial effect (gross, and net) to costs of production, and profitability indices, such as net financial effect per 1,000 zlotys of total revenues, are calculated. In the present study, gross and net profitability rates are being used throughout.

19. Central Statistical Office, Warsaw, *Price Changes in the National Economy in 1989 and the First Half of 1990* (in Polish) (September 1990), 3.

20. Ibid. *The Market and Monetary Situation, December 1989* (in Polish) (1990); idem, *Information about the Socioeconomic Situation in Poland during the First Half of 1990* (in Polish) (1990).

21. Here and further on comparisons are made with January 1989.

22. Central Statistical Office, *Information about the Socioeconomic Situation*, 52. These data tell us that the volume of retail sales fell during the first half of 1990 by 44 percent; they also tell us that, after a substantial decline in January (and a slightly smaller decline in February), the sales volume increased by 8 percent and was maintained at that higher level in subsequent months.

23. Our estimate is based on data on the decrease of sales by light industry and food processing during January 1990, and takes into account their relative weight in the output of the entire consumer-goods sector.

24. It should be observed that in January 1990, thanks to wages received during December 1989, householders had relatively high disposable incomes. (Traditionally, December payments are higher than those made in prior months and the wage indexation coefficient prevailing in January [0.3] would not be felt until February.)

25. Central Statistical Office, Warsaw, *Statistical Bulletin* no. 8 (1991), 15 (in Polish).

26. M. Górski and D. Jaszczyński, "Prices: Causes and Effects of Stabilization" (in Polish) (Paper presented at a conference: Financial Policy—Disequilibrium and Stabilization, Wilga, Poland, 30–31 May, 1990), 12.

27. Ibid., p. 3.

28. Central Statistical Office, Warsaw, *Statistical Bulletin* no. 8 (1991), 46 (in Polish).

29. Idem, Annex, p. 3.

30. So rapid an increase in "corrective inflation" (including both wholesale and retail prices) during the first month of a stabilization program is unusual. When comparing Poland with four market economies that undertook stabilization programs during the 1980s, we find that only in Argentina was the rate of inflation during the first month of the program higher than it had been before. Even then, it was significantly lower than the rate in Poland. In Bolivia, Israel, and Brazil the rate of inflation has declined during the first month of the stabilization program. See M. Bruno et al., eds., *Inflation Stabilization: The Experience of Israel, Brazil, Bolivia and Mexico* (Cambridge, Mass.: MIT Press, 1988).

31. In calculating the prices of finished goods to be sold in January 1990, the SOEs assumed the following increase in their direct costs (the percentage increase above the level prevailing in December 1989, which is indexed at 100): Fiat 126p (a popular Polish car), 163 percent; an electric vacuum cleaner, 227 percent; a man's suit made of wool and synthetic fibers, 485 percent. (These data were furnished by the Ministry of Industry and Trade, Warsaw, 1991.)

32. Central Statistical Office, Warsaw, *Statistical Bulletin* no. 8 (1991), 46 (in Polish).

33. M. Górski and D. Jaszczyński, "Macroeconomic Conditions and Effects of

the Stabilization Policy in Poland" (in Polish) (Paper read at a conference: Financial Policy—Stabilization and Transformation, Wilga, Poland, 24–26 April, 1991), 22.

34. For example, the analysts quoted in footnote 8, above, did not pay sufficient attention to the price policy of SOEs.

35. Gomułka, "Stabilization and Growth," 6, 7.

36. It should be remembered that state-owned enterprises in Poland only superficially resemble public enterprises existing in Western market economies. Polish SOEs lack a properly defined owner; they are not joint-stock or limited liability companies; in fact, they constitute a true relic of a past era of real socialism dating from 1981. Power is exercised by directors who can appoint and fire the manager, but who, comfortably enough, are not required to be responsible for the enterprise's economic performance as one would expect of an owner. In addition, the trade unions (both Solidarity and post-communist unions) exert a considerable influence on the management of SOEs.

37. J. Lipiński, "The impact of recession upon the behavior of SOEs" (in Polish), *Gospodarka Narodowa* (Warsaw) no. 1–2 (1991).

38. Central Statistical Office, *Information about the Socioeconomic Situation*, 12.

39. A similar judgment was made by Frydman and Wellisz who try to explain the growth of a marginal propensity to save that occurred (along with falling real incomes), particularly during the first half of 1990, by the Pigou effect, that is, by a fall in the purchasing power of the dollar, and unconnected with the rise, noted above, in savings as fears of inflation receded. See R. Frydman and S. Wellisz, "The Ownership-Control Structure and Behavior of Polish Enterprises during 1990: Macroeconomic Measures and Microeconomic Responses," in *Reforming Central and Eastern European Economies* (Washington D. C.: World Bank, 1991).

40. Central Planning Office, Warsaw, "Information Concerning the Course of Economic Processes," 59–65.

41. The net profitability rate of the Polish industry as a whole was 35.5 percent in January 1990, 42.0 percent in February, 29.0 percent in March, 32.0 percent in June, 29.0 percent in September, and 32.0 percent in December.

42. Central Statistical Office, "Information about the Socioeconomic Situation" 17–21; idem, *Statistical Bulletin* no. 2 (1991), 51.

43. Central Statistical Office, Warsaw, *Statistical Yearbook 1992*, 1992 (in Polish).

44. Central Statistical Office, Warsaw, "Information about the Socioeconomic Situation," 54; idem, *Statistical Bulletin* no. 2 (1992).

45. The most relevant reason for this derives from considerations of efficiency. Apart from that, the resurgence of the recession was also influenced by a 40 percent drop in the volume of exports to the former Comecon area and by a significant increase in the prices of goods imported from that area.

46. Among those industries exporting less were electricity and enginering, 21 percent less; fuels and energy, 10 percent less; chemicals and light industry, 8 percent less; food processing, 7 percent less. Among those industries exporting more, we note metallurgy, by 45 percent; wood and paper, by 41 percent; and agricultural products, by 21 percent. Increasing competition from the so-called unregistered economy should

also be taken into account. See Central Statistical Office, "Information about the Socioeconomic Situation," 42–48.

47. Ibid., p. 55.

48. Ibid., p. 54.

49. R. McKinnon, "Liberalizing Foreign Trade in a Socialist Economy: The Problem of Negative Value Added" (paper presented at the conference: Currency Convertibility in Eastern Europe, Vienna, 1991). According to calculations by Hughes and Hare, at least 10 percent of the Polish industrial SOEs operating during the 1980s have had a negative value added. See G. P. Hare and W. G. Hughes, "Competitiveness and Industrial Restructuring in Czechoslovakia, Hungary and Poland," *European Economy*, special edition, no. 2, 1991.

50. So far, there is little hope for such a course of events as, during the first half of 1991, investment outlays were 13 percent lower than they had been in the same period in 1990, while expenditures on the purchase of machinery and equipment remained stable at the low level prevailing in 1990. Although purchases of imported machinery and equipment rose by 15 percent, the share of those imports in the country's total expenditure on machinery and equipment was insignificant. See Central Statistical Office, *Information about the Socioeconomic Situation*, 41.

51. Ministry of Finance, government of Poland.

52. There are visible symptoms of "new ties and linkages" being forged to suit the new situation; they consist of agreements reached among the managements of the SOEs and the Solidarity trade unions, on the one hand, and centers of the new political authority, on the other, to exert joint pressure on the so-called commercial banks.

53. Polish National Bank, "An Analysis of the Profitability of the Banks" (in Polish) (Warsaw, 1991, mimeographed).

54. In a certain sense, there is a double mechanism making it possible for inefficient SOEs to survive and thereby limit the output of efficient SOEs. First, the efficient SOEs lose liquidity as their creditors delay payment; the efficient SOEs are, in consequence, forced to seek new, more expensive, credit. Second, the more efficient SOEs are, perforce, limited in their access to credit, for the simple reason that some of the total credit available must be allocated to the inefficient SOEs. The resulting pressure on interest rates makes them likely to rise.

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