Title	MACROPOLICY INNOVATIONS IN POLAND
Sub Title	
Author	FEIWEL, George R.(FEIWEL, George R.)
Publisher	Keio Economic Society, Keio University
Publication year	1981
Jtitle	Keio economic studies Vol.18, No.1 (1981.) ,p.59- 78
JaLC DOI	
Abstract	
Notes	
Genre	Journal Article
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AA00260492-19810001-0059

MACROPOLICY INNOVATIONS IN POLAND

George R. FEIWEL

This paper aims to shed some light on the major, even if circumscribed, shifts in Polish macropolicy in the 1970s, viewed in perspective of the growth strategy pursued. Throughout the postwar period Poland has undergone three distinct periods of rapid industrialization and waves of investment. The first was involved in the Stalinist Six-Year Plan and its peak of intensity lasted from about 1950 to 1953. The second was much more protracted, with periodic peaks and troughs, but for all intents and purposes it embraced about a decade (1959–1970). The third occurred almost on the heels of the second, and similarly to the first, was much more abrupt and concentrated, lasting from about 1972 to 1975. Aside from other differences and similarities of these waves, whereas it was the agricultural sector and the workers that paid for the first wave, the burden of the second fell almost entirely on the worker-consumer, and the third was largely externally financed. All three waves ended in riots and bloodshed. The third was also wound down partly due to the need to lower the growth barriers and repay or at least control the hard currency debt. This, novel for Poland, import-led growth strategy would probably have been much more effective had the investment rate been more gradual and sustained over time and accompanied by complementary measures, so that the growth barriers would have been overcome or at least not allowed to become insurmountable.

I

The postward Polish economy grew at fairly rapid rates both by historical and comparative standards. However, the growth rates fluctuated in time and the development was disharmonious and costly both in terms of human and material resources. Irrespective of the normative criteria for judging the ends to which resources ought to be deployed, it appears that with more caution, flexibility, and imagination the pursued ends could have been achieved at a lower cost, with less adverse nonmaterial consequences and less damage to the long-term performance of economic agents.

The system was successful in mobilizing resources for growth forcing activities, but did not use the resources effectively. Time and again it lost opportunities for generating a sustained long-term rise in productive potential and a beneficial structural transformation. The system proved itself incapable of redesigning and adjusting institutions to fit changing conditions and facilitate transformations.

Concurrently innovations in macropolicy were inhibited and the system failed to create solid conditions for long-run economic dynamics.

This paper aims to shed some light on the major, even if circumscribed, shifts in Polish macropolicy in the 1970s, viewed in perspective of the growth strategy pursued.[1] The new leadership that took over in the 1970s was intrinsically conservative. But even such a leadership was forced to act in response to shifting conditions, stormy political and social events, and the sluggish economic performance. However, it preferred to modify policy and arrangements, rather than to radically and comprehensively redesign macropolicy and the concomitant in stitutions. It is irrefutable that this leadership was working under powerful feasibility constraints, but its timidness and lack of the necessary will, dedication, and ability to generate, institute, and sustain a fundamental reform of growth strategy and institutions were discouraging.

Growth can be propelled by using more resources or by increasing the output obtained from the same quantum of resources, or by both. To sustain economic growth, with declining increases in productivity, a proportionately larger share of national income has to be channeled to investment. If such policy were continued it would entail encroachment on other uses of the national product such as personal and public consumption. Theoretically such a policy is conceivable, but it is not politically feasible within a more or less narrow range. The other alternatives (or combinations thereof) available to the central planner are to take the necessary steps to increase productivity, to reconcile himself to a lower growth rate, or to secure external financing.

In broad contours the history of Polish postwar economic development was characterized by a policy of high investment. Investments were used as the crucial growth propeller. Whenever a decision was made to accelerate the growth tempo the principal instrument to achieve that goal was growth of investment. Throughout the postwar period Poland has undergone threee distinct periods of rapid industrialization and waves of investment. The first was involved in the "Stalinist" Six-Year Plan and its peak of intensity lasted from about 1950 to 1953. The second was much more protracted, with periodic peaks and troughs, but for all intents and purposes it embraced about a decade (1959–1970).[2] The third occurred almost on the heels of the second, and similarly to the first was much more abrupt and concentrated, lasting from about 1972 to 1975.

Aside from their timing and intensity the primary differences and similarities among the three waves of investment were: (1) All three concentrated primarily on developing production of producer goods, but the second paid more attention to agriculture, and the third was to some extent more concerned with consumer

[1] For reasons of space many aspects of the complex and interdependent problems can hardly be treated here as they deserve to be. The exposition and analysis of these problems and their implications have had to be relegated to a sequel article.

[2] For an exposition and analysis of the first two waves see G. R. Feiwel, *Industrialization and Planning Under Plish Socialism*, (New York, 1971), Vol. I.

goods production. (2) The first wave concentrated primarily on building up the processing industry and utterly neglected housing and agriculture, the second wave stressed more the development of agriculture and the raw materials base, hence its relatively long span and high capital intensity, and the third was characterized again by a stress on the processing industry, with emphasis on modern technology, relatively massive imports of machinery and licenses from the West, and the resultant growing disproportions and trailing of the raw materials base and agriculture in the second half of the 1970's. (3) Whereas it was the agricultural sector and the workers that paid for the first wave, the burden of the second fell almost entirely on the worker-consumer, and the third was largely externally financed. (4) Whereas the first two waves ended in bloodshed and revolt (the Polish October of 1956 and December of 1970), the third was wound down partly in response to the riots of June 1976 and to the need to lower the growth barriers and repay or at least control the hard currency debt. It was followed in the second half of the 1970's by the so-called new economic maneuver which aimed at decelerating growth rates, approaching a balance on the consumers market by considerably decelerating growth of purchasing power and accelerating supply of consumer goods, stressing quality consumer goods production and encouraging agriculture, reducing the share of investment in national income and funelling investment expenditures primarily to finishing investment in process, to modernization rather than new construction, and to housing construction, and repaying foreign debts by sharply decelerating growth of imports and accelerating that of exports. But the performance of the economy does not bear out the sucess of this maneuver.

II

The traditional Soviet and East European growth strategy featured, *inter alia*, stress on rapid industrialization; priority of investment and other resources for heavy industry and discriminatory allocation within it, with relative neglect of light industry and agriculture; faster growth of investment than of national income (and *ipso facto* consumption); autarkic tendencies; and the nationalization of industry and forced collectivization of agriculture. Progress was identified not only with maximization of the "short-term" growth rate of industrial output, but also with the rate of growth of specific key industries—"leading links." Such growth strategy gave rise to striking imbalances and disproportions between the development of agriculture and industry; among branches of industry, broadly heavy versus light; between the new processing capacity and the supply of raw materials; between the sheer quantitative growth of output and quality, production techniques, and costs; between the investments in new factories and the obsolescence of the underprivileged branches; and between the productive and nonproductive activities, with the appalling neglect of the service sector. Already at the planning stage consumption was largely treated as a residue; it suffered further during implementation when it was treated as the shock absorber for planning blunders, unforeseen developments in unplannable activities (e.g., foreign trade and agriculture), and interim shifts in priorities.

The traditional growth strategy relied largely on quantitative or "extensive" growth, propelled by huge investment and employment; as contrasted with predominantly "intensive" development characterized by improved quality and composition, cost reduction, and increased productivity, spurred *inter alia*, by the diffusion of technical and organizational progress and incentives to produce. In general CMEA countries have been falling behind the West in productivity gains. Research on comparative productivity shows that productive efficiency in the USSR and CMEA is low by Western standards (at least excluding the U.K. and the recent retrogression in the U.S.) and that in these countries productivity increases have been more costly than in the West.[3]

The divergencies in quantitative dimensions among individual countries and in time notwithstanding, one of the key features of modern economic growth in industrialized capitalist countries is that high growth rates of expansion of per capita national product were achieved primarily by qualitative improvements of factors. The high growth rate of productivity is essentially traceable to improved quality of resources, technical change, and evolving arrangements for the diffusion and use of knowledge. Such a growth process is associated with capital accumulation, but the ratio of capital to output is compressed by capital-saving inventions, investment in human capital, and working arrangements that were conducive to a relative reduction of material and capital inputs. Thus, as Kuznets has shown, relatively high dynamic efficiency was partly instrumental in maintaining relatively modest shares of investment and relatively high shares of consumption in national product.[4] One of the striking contrasting features of the fairly impressive Soviet and East European industrial growth is that it has been primarily accomplished by growing quantities of inputs with disappointing increases in productivity and efficiency.

In a dynamic process present events are the result of preceding developments and they, in turn, contribute to the future development of the system.[5] The rate of economic growth at a given time is a phenomenon deeply rooted in the preceding economic, social, technical, and cultural developments rather than determined fully by recent macroeconomic policy and arrangements for resource allocation. Roughly the rate of economic growth (r) is conditioned by $\alpha+\beta$ where α represents the rate of increase of productivity owing to technical progress and β the "natural" rate of increase in the labor force. In addition,

[3] Cf. A. Bergson, *Productivity and the Social System—the USSR and the West* (Cambridge, Mass., 1978).

[4] S. Kuznets, *Population, Capital, and Growth* (New York, 1973).

[5] The following analysis of the growth process in centrally planned economies draws on M. Kalecki. *Introduction to the Theory of Growth in a Socialist Economy* (Oxford, 1969); Cf. Feiwel, *Jahrbuch der Wietschaft Osteuropas* 8 (1978), pp. 141–210.

$$r=\frac{1}{m}\frac{I}{Y}-a+u$$

where m stands for the incremental capital-output ratio, I/Y for the relative share of gross accumulation in gross national income, a for the parameter of depreciation, and u for the coefficient of improvement independent of investment activity owing primarily to improvements in the rate of utilization of existing stock of capital and labor performance. The growth strategy decisions include, *inter alia*, (1) the size of accumulation in GNP, (2) the real composition of accumulation and of direct and indirect production (the distribution of investment between "productive" and "non-productive" endeavors, sectoral and branch allocation of investment, absorption, adaptation, and diffusion of world knowledge, and choice of techniques) and the scrapping policy, (3) the internal and external financing of accumulation; and (4) the economic mechanism for allocating and utilizing resources and for fostering the system's dynamic efficiency (technical dynamism and institutional innovations).

One of the distinguishing characteristics of different social systems is how they generate and utilize the economic surplus. A centrally planned economy provides a significant opportunity for simultaneously solving the problems of capital accumulation, aggregate demand, and income distribution. One of the key problems is how much economic surplus should be extracted and how to accomplish this. But a no less important question for the system's dynamic efficiency is that of uses made of the accumulation fund collected. Roughly, the relationship of the value of consumer goods and services made available on the market to the total wage fund should be so set as to achieve the necessary surplus. In principle, by setting an appropriate price-wage ratio so as to achieve full utilization of resources (both in the long and short period), the central planner of a socialist economy determines the division of national income into accumulation and consumption and solves the financing of accumulation. The crucial decision about the size of accumulation is largely political.

The central planner tends to accelerate the tempo of economic growth by setting as a target an immediate growth rate at the "highest possible" level. Aside from the adverse time distribution of consumption, such a decision encounters various technical and organizational barriers. The bottlenecks resulting from forced and abrupt overexpansion of certain activities are bound to prolong the gestation periods of investments and fruition of output, to raise the cost of an incremental unit of output, and to lower the investment-efficiency index. The central planner tends to underrate the barriers and to overrate his ability to overcome them. This gives rise to optimistic plans resulting in a misallocation of resources and in more extreme cases in break-downs and costly shifts. In general the periodic fluctuations in activity lead to underutilization of resources and depress the long-term performance. The postulation of overambitious growth rates results in a *de facto* lower long-term rate than that which could have been achieved had more modest goals been planned at the outset.

The slogan of sacrificing the present for the future is a popular one; in order to achieve a higher level of consumption in the long run, it is necessary to restrain consumption in the near future. This deterioration of consumption is the price paid by the population for raising the growth rate of national income in the immediate future and the level of the increase in the long run. In the long run, consumption is favorably affected by the cumulative effect of growth of national income. While the short-run effects of the increase of accumulation are manifestly clear, not always a higher share of accumulation renders a higher standard of living in the long run. Thus the policy-makers have to strike a compromise solution to the accumulation-consumption dilemma, based on political premises. Since by raising the growth rate the level of consumption may be less favorable over a certain period and more favorable thereafter, the relative advantages of the central planner's maneuver become greater, the longer the time span he is considering. The choice is not only between the present and future generation(s), but of intertemporal allocation in the life span of the present generation.

In principle, the central planner compares the benefits from raising the growth rate (and hence the accumulation rate) with the inroads into consumption resulting in possible consumers' resistance. A conflict arises between the central planner's desire to step up capital accumulation and the workers' refusal to accept the level of real wages compatible with the postulated accumulation. Generally, the higher the accumulation rate, the stronger is the consumer's opposition. Real wages can only be reduced up to a certain point (or perhaps a maneuverable range) without provoking pressures to restore the previous level. Reduction of real wages below a certain level encounters the frustration barrier (defined as the lower limit below which real wages cannot be reduced without provoking political and social disturbances and damaging labor productivity, morale, and social consciousness).[6] Such a barrier generally arises at the level of real wages to which the workers have become accustomed or at the "normal" increase which they have come to expect, frustrating the central planner's attempt at increasing the rate of capital formation.

Accelerated industrialization drives are usually associated with a growing disparity between a rapidly expanding wage fund and the sluggish supply of consumer goods. Investment leads to enhanced purchasing power, which is not supported by commensurate increases in production of consumer goods. The latter can be procured by imports, but increased investment strains the balance of payments by generating greater requirements for imports of producer goods. In the end, not only can industrial consumer goods not be imported, but imports of raw materials for consumer goods production are also constrained, while some consumer goods are being exported to pay for the imports.

Usually an increase in the rate of investment is accompanied by a growth of

[6] Cf. Joan Robinson, *The Accumulation of Capital* (New York, 1956), passim.

employment in the investment sector increasing the total wage fund in this sector. The average wage rate in this sector is usually above that in the economy as a whole. Furthermore, intensified industrialization is usually supported by relaxation of monetary restrictions on enterprise liquidity and boosts in wages and premiums.

This accumulation-consumption conflict argument rests on the assumption of a closed system and preponderance of the neutral bias of technical progress. If technical progress is of a strong capital-using type, such conflict may not arise, for then the consumption gains as a result of a higher growth rate more than offset the adverse effects on consumption resulting from a higher share of investment in national income. A similar phenomenon may appear if the technical progress is increasing over time, with a given incremental capital-output ratio. Here again a positive effect on consumption of a higher growth rate of output may outweigh the depressing effect of a higher share of investment in national income. Another factor alleviating conflict would be the possibility of financing by external accumulation. All these factors became important in post-1970 Poland.

III

In the early 1950's Polish planners mechanically copied the Soviet development strategy and planning system. The policy was not devoid of a measure of success, with heavy industry forming the spearhead of the industrialization rush. However, it gave rise to well-known serious dislocations. In 1956 Gomulka's return to power aroused new hopes. A certain distinct retrenchment in the overall industrialization rush was observed, with crucial modifications in the investment-consumption allocation and the use of incentives to effect economic change. The tenet of priority of development of heavy industry was temporarily shelved and collectivization was abandoned for the time being. As shown in Tables 2 and 3, in 1954–57 the growth rates of investment moderated, the share of accumulation in 1955–58 gravitated at about 20 percent—the lowest it has been in the postwar period—the harvests in 1956–58 were relatively good, and in 1956–57 real wages and farmers' incomes grew considerably. Previous gains were consolidated and disporportions smoothed out (the consumption oriented phase), but 1959–60 was a springboard for the resumption of the industrialization rush in the 1960's. History repeats itself, at least with some variations. The main lessons of the past were not learned. In the 1960's Poland embarked on a second wave of investment, with stepped up development of heavy industry. However, the return to forced industrialization was less extreme and somewhat more circumspect. Greater attention was paid to agriculture; attempts were made to check the exit of the labor force from agriculture; growth of investment was less pronounced.

Tables 2 and 3 indicate that during the 1960s Poland continued with steady growth rates of investment which (with the exception of 1963–64) gravitated at about 10 percent annually, and the share of accumulation in national income rose

TABLE 1. AVERAGE ANNUAL RATES OF GROWTH OF NATIONAL INCOME (1), INDUSTRIAL OUTPUT (2), IMPORT (3), AND EXPORT (4) IN SOME CMEA COUNTRIES, 1951–1975

Countries		1951–55	1956–60	1961–65	1966–70	1971–75
Bulgaria	1	12.2	9.6	6.7	8.7	7.8
	2	13.7	15.9	11.7	10.9	9.1
	3	13.6	20.4	13.2	9.2	19.5
	4	15.2	19.3	15.4	11.3	14.2
Czechoslovakia	1	8.1	7.0	1.9	6.9	5.5
	2	10.9	10.5	5.2	6.7	6.7
	3	10.5	11.6	8.0	6.7	13.8
	4	8.6	10.4	6.8	7.1	11.3
GDR	1	13.1	7.1	3.4	5.2	5.4
	2	13.7	8.7	5.8	6.5	6.5
	3	20.2	13.2	5.1	11.5	14.1
	4	26.1	11.3	6.8	8.3	12.7
Hungary	1	5.7	6.0	4.1	6.8	6.1
	2	13.2	7.6	7.5	6.2	6.4
	3	11.1	12.2	9.3	10.7	21.3
	4	13.1	7.6	11.6	8.9	19.0
Poland	1	8.6	6.5	6.2	6.0	9.8
	2	14.8	9.7	8.4	8.3	10.4
	3	6.8	9.9	9.4	9.0	23.7
	4	7.7	7.6	10.9	9.7	19.2
Rumania	1	14.2	6.6	9.2	7.6	11.3
	2	15.1	10.9	13.8	11.9	12.9
	3	13.7	7.0	10.7	12.7	17.7
	4	14.8	11.2	9.0	10.9	19.0
USSR	1	11.3	9.2	6.5	7.8	5.7
	2	13.2	10.4	8.6	8.5	7.4
	3	16.0	13.0	7.4	7.9	20.4
	4	13.8	10.1	8.0	9.4	15.9

SOURCE: *Kraje RWPG 1977* (Warsaw, 1977), pp. 52, 61, and 125.

from 22 to 26 percent (investments from about 15 to 20 percent) heavily taxing the economy and allowing for extremely meager increases in real wages (ranging between 1 and 2 percent annually and often below). Agricultural performance did not really cooperate (except for 1960–61 and 1965–66 when the good harvests unfortunately occurred at the start of new FYPs making the planners overly sanguine in target setting), with disastrous setbacks in 1962 and 1969. But the planners succeeded in raising the relative contribution of industry to national income from about 35 percent in 1958 to 46 percent by the end of the 1960s. However, as illustrated in Table 1, Polish economic performance relative to its CMEA partners—always an important yardstick of the leadership's

TABLE 2. ANNUAL GROWTH RATES OF NATIONAL INCOME (1), INDUSTRIAL OUTPUT (2), AGRICULTURAL OUTPUT (3), INVESTMENT (4), AVERAGE REAL WAGES IN THE SOCIALIZED ECONOMY (5), AND REAL INCOMES IN PRIVATE AGRICULTURE (6) IN POLAND, 1959–1977

Years	1	2	3	4	5	6
1950	15.1	n.a.	7.5	36.8	n.a.	n.a.
1951	7.5	18.8	−7.4	12.2	n.a.	n.a.
1952	6.2	17.3	1.9	18.7	n.a.	n.a.
1953	10.4	16.0	2.7	15.2	n.a.	n.a.
1954	10.5	11.2	5.9	5.9	n.a.	n.a.
1955	8.4	10.9	2.5	4.0	n.a.	n.a.
1956	7.0	8.8	7.4	4.7	11.6	15.1
1957	10.7	10.4	4.1	7.8	8.3	5.5
1958	5.5	9.8	3.0	10.3	3.3	1.9
1959	5.2	8.9	−0.9	16.6	5.1	−2.4
1960	4.3	10.7	5.4	5.9	−1.5	5.4
1961	8.2	10.2	10.4	7.3	2.6	11.2
1962	2.1	8.4	−8.3	9.7	0.4	−14.8
1963	6.9	5.4	4.1	2.7	2.4	10.7
1964	6.7	9.2	1.2	4.7	2.1	2.0
1965	7.0	8.9	7.7	9.5	0.0	8.6
1966	7.1	7.5	5.2	8.4	3.3	3.7
1967	5.7	7.9	2.4	11.3	2.5	−0.3
1968	9.0	9.4	4.4	8.7	1.3	8.3
1969	2.9	8.8	−4.7	8.2	1.7	−15.8
1970	5.2	8.1	2.2	4.1	1.7	2.2
1971	8.1	7.9	3.6	7.5	5.7	15.2
1972	10.6	10.7	8.4	23.6	6.4	14.9
1973	10.8	11.2	7.3	25.0	8.7	3.4
1974	10.4	11.4	1.6	22.5	6.6	−6.6
1975	9.0	10.9	−2.1	14.2	8.5	−6.2
1976	6.8	9.3	−1.1	2.2	3.9	8.0
1977	5.0	6.9	1.4	4.3	2.3	10.1

SOURCE: *Rocznik Statystyczny 1978* (Warsaw, 1978), pp. XXXII–XLI.

performance—was far from spectacular.

Perhaps the single weakest feature of the 1961–65 plan was that it had been constructed by overoptimistic planners who consistently over-estimated possibilities on all fronts. The plan was constructed without reserves in the more susceptible areas (i.e., agriculture and foreign trade), while relying on undisclosed reserves and potential sources of growth outside investment (intensive growth) without providing the necessary conditions to elicit them. As a result of the enormous tensions built into the plan and a disastrous harvest in 1962, the plan collapsed midstream, so that its execution can be subdivided into two distinct periods: (1) 1961–62 featuring peak investment, overfulfillment of producer goods output, and increased employment, with 1963 a transitional year, and (2) 1964–65 featuring a cut in investment, restraints on growth of employment, restrictions on

TABLE 3. INDICATORS OF NATIONAL INCOME PRODUCED AND DISTRIBUTED IN POLAND, 1950–1977

	National Income Produced			National Income Distributed			
		Sectoral Contributions			Distribution for:		
						Accumulation	
Years	1950=100	Industry	Agriculture	1950=100	Consumption	Total	Investments in fixed assets
1950	100.0	28.8	56.7	100.0	76.2	23.8	11.0
1951	107.5	30.9	52.1	107.5	77.1	22.9	11.4
1952	114.2	33.1	48.7	114.1	74.7	25.3	12.6
1953	126.1	33.9	45.1	125.9	68.0	32.0	13.4
1954	139.4	33.6	41.8	139.3	74.5	25.5	13.4
1955	151.1	33.9	39.8	151.7	78.6	21.4	13.3
1956	161.7	33.7	39.2	163.6	80.5	19.5	12.8
1957	179.1	34.6	38.1	185.9	78.3	21.7	12.6
1958	189.0	35.3	37.4	191.8	78.2	21.8	13.6
1959	198.8	36.6	34.5	205.3	78.0	22.0	15.0
1960	207.5	37.4	34.0	211.4	76.9	23.1	15.3
1961	224.4	37.5	34.8	226.8	76.1	23.9	15.4
1962	229.1	40.2	30.3	232.9	77.3	22.7	17.2
1963	245.0	40.2	30.6	247.6	76.0	24.0	16.2
1964	261.5	41.5	29.4	259.7	75.9	24.1	16.2
1965	279.8	42.4	29.2	281.4	74.6	25.4	16.6
1966	299.7	42.2	29.1	302.2	73.8	26.2	17.4
1967	316.8	42.9	27.8	315.8	74.6	25.4	18.7
1968	345.3	43.2	27.2	342.6	73.3	26.7	19.3
1969	355.3	46.1	22.9	354.6	74.6	25.4	20.0
1970	373.8	46.8	22.5	372.3	73.9	26.1	19.5
1971	404.1	47.0	22.4	408.9	72.5	27.5	19.5
1972	446.8	47.1	21.3	461.0	70.4	29.6	22.2
1973	495.1	47.5	19.9	526.7	67.0	33.0	24.6
1974	546.8	48.5	17.6	590.2	64.4	35.6	27.0
1975	595.9	50.2	15.3	654.4	64.8	35.2	28.4
1976	636.4	51.4	14.5	700.2	65.9	34.1	26.7
1977	668.2	52.7	13.7	719.1	68.5	31.5	27.2

SOURCE: *Rocznik Statystyczny 1978* (Warsaw, 1978), pp. XXXII–XXXIII.

wage increases, and increased production of consumer goods, in order to allow a breathing spell before resuming the industrialization rush in 1966–70.

The second half of the 1960's followed a five-year period during which a meager average rate of increase of living standards was recorded. It would seem, therefore, that one of the overriding tasks of the 1966–70 plan should have been to redress this deplorable state of affairs. In comparison to the first half of the 1960's the labor force was to increase considerably, with a slight deceleration of population growth. The rate of growth could not be accelerated because of difficulties in balancing foreign trade. Throughout the development of postwar Poland, foreign trade had been a major bottleneck. There was every indication that in 1966–70 difficulties in equilibrating the balance of payments would become more acute. While means of limiting imports and forcing exports had to be an integral part of the plan, it was, of course, irrational to eliminate those imports which in one way or another contributed to producing the necessary exportables.

In conformity with the past experience of Polish industrialization, the main targets of the 1966–70 five-year plan featured a growing share of industry in the production of national income; a one-sided development of the raw materials base, an accelerated growth of the machine-building and chemicals industries; increased exports of machinery; a faster growth rate of investment than of national income, and a slower rate of growth of consumption than of national income. The development of the economy was supposed to rely increasingly on infusion of technical progress in all areas of the economy, without any measures to ensure that technological advancement is an integral part of the working arrangements. Again, no real reserves were provided. While in some respects greater caution was evinced in formulating the targets, this was definitely not the case in allocating resources to consumption, in increasing real wages, and generally in measures affecting the population's welfare. The planners underestimated the potential powder keg of the population's discontent with its lagging living standards, earnings, employment, the size and composition of the consumption fund, etc. which eventually proved to be the instrument of their undoing.

One of the chief errors of the 1966–70 FYP probably was the aim to achieve self sufficiency in grain production. With this end in view, the idea was to increase procurement of grain from the farmers. This was done not only by increasing the supply of fertilizers to raise yields, but also by increasing purchase prices of grain to encourage the farmers to sell more grain to the state. By manipulating the relative state purchase prices of grain and livestock (increasing prices of grain while leaving prices of liverstock at about the same level), the planners encouraged the farmers to sell more grain to the state while leaving themselves less for livestock breeding. Had the planners reconciled themselves to the pevious average imports of grain, they would not have had to induce farmers to dispose of their grain and would not have unwittingly discouraged livestock breeding which resulted in the very severe meat shortages at the end of the 1960s.

Considerable strains and tensions prevailed during the implementation of the 1966–70 plan, especially on the consumers' market, in construction, and in foreign trade. The factor primarily responsible for the strains was expansion of investment. The investment outlays target was considerably overfulfilled. The average annual rate of growth of investment exceeded that of national income. Overfulfillment of gross industrial output targets centered exclusively on output of producer goods, whereas output of consumer goods lagged behind and barely achieved the planned quotas. Exports grew faster than planned, mainly due to above-plan expansion of exports of sulfur, coal, and industrial consumer goods. Despite the increasing investments poured into the machine building industry, the campaign to increase materially exports of machinery was largely unsatisfactory.

The growing investment activity not only accelerated effective demand but was also accompanied by a "retarding" effect on the supply of consumer goods (aggravated by difficulties in correcting the situation by foreign trade, in view of the rising import requirements for capital goods and raw materials). Overinvestment resulted in delays in commissioning new capacities, failures to ensure increase of planned capacities in consumer goods production (accentuated by shortages of raw materials and certain categories of labor), shortages on the consumer market, increase of prices on the free market, and price changes in the state sector. During the course of the plan, the gap between the rates of growth of output of producer and consumer goods widened, with some restrictions imposed in 1969–70.

In practice, above-plan increases of purchasing power precipitated price changes. Faced with the inability to increase correspondingly the supply of consumer goods and services, the planners resorted to price increases in order to ration the scarce supply by the purse. The much debated, resisted, and controversial revision of retail prices that was finally announced on December 13, 1970, aimed at mopping up excess purchasing power and rationing foodstuffs by the purse. It was the outcome of the "new" policy to restructure consumption in favor of industrial consumer goods, including durables. Governments are usually wary of resorting to such a policy because it is likely to be highly unpopular since it tends to raise the cost of living, especially for the lower-income groups. The reduction of prices of industrial consumer goods tends to increase real incomes among the higher-income groups relative to the lower-income groups because expenditures on these goods in the lower-income groups are relatively small. The higher-income groups usually are less affected by an increase in prices of foodstuffs, especially with the existing relatively narrow range of price and quality differentiation of foodstuffs. However, real income of the lower-income groups drops substantially with a price hike on foodstuffs.

The Gomulka regime was toppled primarily, if not exclusively, on the grounds of the economic debacle after a series of strikes and bloody riots that spread from the Szczecin shipyards following the announcement of the price increases. The simultaneous clamp-down on increase of employment (to reduce or arrest increase of households' nominal incomes), and the illconceived new premium system used as a weapon to freeze earnings of workers, coupled with the sharp increases in prices of necessities, put into motion powerful forces of resistance against the increasing extraction of "surplus product" that shifted the burden of "heroic" and "mobilizing" planning and all sorts of planning blunders and inefficiencies onto the worker-consumer.

IV

In the 1970's Polish economic policy featured two distinct periods and approaches: (a) 1971–76, expansionary, import-led, ebullient growth, with an abrupt, very large, accelerating, and relatively long-lasting (1972–75) spurt of investment, with the growth of investment far outpacing that of national income, together with rapidly rising wages and personal incomes; and (b) 1977–80 when retrenchment and consolidation was attempted to cool off the overheated economy, a damper was put on the import spree in an effort to control the foreign indebtedness, investment was substantially pared down, and growth rates were decelerated.

In 1972–74 Poland experienced the highest growth rates of investment in its postwar history (with the exception of 1950), and from 1973 the share of accumulation in national income soared above 30 percent (that of investment to nearly 30 percent)—moderated somewhat after 1977. From 1971 to 1975 real wages grew faster than hitherto (with the exception of 1956–57) and the incomes of farmers rose substantially in 1971–72 and 1976–77, but declined sharply in 1974–75. The relative share of industry in national income rose from 47 percent in 1970 to 53 percent in 1977 and that of agriculture dropped from 23 to 14 percent. Within CMEA, in 1971–75 Poland was bested only by Rumania in growth rates of national income and industrial output and outdid all other countries in growth rates of imports and exports (see Tables 1, 2 and 3).

In some respects Polish economic policy of the 1970's featured the reverse case of the traditional growth strategy, with some factors alleviating temporaily the accumulation-consumption conflict. Some of the distinguishing features of period (a) which led to the problems of period (b) could be tentatively summarized as follows:

1. Faced with the protracted stagnation of living standards (and for some groups retrogression) and a population in revolt, in 1971 the new leadership had to introduce immediate and palpable increases in real wages and incomes and to improve the supply of foodstuffs and industrial consumer goods. The price increases introduced in December, 1970 were rescinded. Prices of necessities were frozen for at least two years.[7] Purchase prices of agricultural products were substantially increased (especially for livestock) and mandatory deliveries were abolished.

According to Western estimates of the dynamics of personal per capita consumption in five East European countries, with an index of 1965 = 100, Poland moved to 116.4 in 1970—slower than Bulgaria and Hungary (118.2 and 118 percent respectively), but ahead of the GDR and Czechoslovakia (112.2 and 111.5 percent respectively). By 1978, Poland captured first place (157.5 percent), followed by the GDR (146.8 percent), Hungary and Bulgaria (both 146.5 percent), and Czechoslovakia (130.3 percent). The average annual rates of per capita personal consumption in Poland in 1970–75 (4.6 percent) and the annual rate for

1976 (5.2 percent) were higher than in 1960–65 (2.2 percent) and in 1965–70 (3.1 percent) and above those in the other countries. But in 1977 (2.5 percent) and 1978 (0.2 percent) these rates decelerated considerably, falling behind Hungary in 1977 (4.1 percent), and behind all the other countries in 1978.[8]

2. After the initial period of consolidation, a new industrialization rush, accompanied by a boom in the investment rate and large increases in employment in industry and construction was embarked upon. It differed from its predecessors in that it did not impinge on consumption, being primarily externally financed. This is to some extent illustrated by the growth dynamics of national income produced and distributed (Table 3) which until 1970 grew more or less pari passu, but since 1971 national income distributed began to grow at much faster rates than national income produced and the disparities between the rates accelerated until the mid 1970s and later began to decelerate somewhat. The accent was on increasing productivity by means of major imports of Western machinery and know-how. The *differentia specifica* of this growth strategy was the willingness to undertake the burdensome commitment of a high and mounting foreign debt for the benefits of ebullient growth rates, rapid increases in personal incomes, and somewhat lesser, but substantial, increases in consumption.[9] The expectation was that the indebtedness would be repaid in the latter part of the 1970's by superior goods produced by new techniques.[10]

In the 1970s, like the other East European Economics, Poland redirected its foreign trade (especially imports) towards the developed capitalist economies (the West). But it did so on a much larger scale than its CMEA trade partners. Whereas in 1960 the shares of Western trade parterns in Poland's imports and exports were 29.7 and 29.9 percent respectively, they receded to 25.8 and 28.4 percent respectively in 1970, climbing to 34.1 and 30.4 percent in 1972, and 50.8 and 36.3 percent in 1974, and moderating to 48.9 and 32 percent in 1976 and 43.3 and 31.2 percent in 1977.[11] Thus the share of imports from the West grew very rapidly until the mid-1970s, receding somewhat thereafter, while that of exports to the West did not keep pace.

The Polish boom of the 1970's was wound down as the debt mounted and the repayment of credits and associated costs were looming larger on the horizon. The attempts to increase substantially exports of industrial goods to the West have foundered primarily because of the poor quality and workmanship, the relative

[7] Cf. *Zycie gospodarcze* 3 (Jan. 17, 1971), p. 1, and 8 (Feb. 21, 1971), p. 1.

[8] T. P. Alton *et al.*, *Personal Consumption in Eastern Europe, Selected Years, 1960–1978*, OP-57 (New York, 1979), pp. 16–17.

[9] On the problems of assessing and evaluating foreign trade efficiency see the discussion in *Zycie gospodarcze* 10 (March 11, 1973), pp. 1, 4 and 5, M. Kulczycki, *Gospodarka planowa* 1 (Jan. 1978), pp. 31–33; and J. Pajestka, *Gospodarka planowa* 6 (June, 1978) pp. 285–89.

[10] A. Nalecz-Jawecki, *Zycie gospodarcze* 1 (Jan. 2, 1977), p. 3; J. Dzieciolowski, *Zycie gospodarcze* 8 (Feb. 20, 1977), pp. 1 and 2.

[11] *Kraje RWPG 1950–1973* (Warsaw, 1974), pp. 105–106; *Kraje RWPG 1960–1975* (Warsaw, 1976), pp. 117–18; *Kraje RWPG 1977* (Warsaw, 1977), pp. 132–33; and *Rocznik statystyczny 1978* (Warsaw, 1978), p. 522.

technical backwardness of the goods (produced on the basis of designs and techniques that were several years old), inflexibility in adaptation to foreign markets, the attempt to penetrate already well-saturated markets, and the downturn in economic activity in the capitalist countries. Some success was achieved in restraining imports in the latter part of the 1970's, but this pertained mainly to imports of Western technology and industrial consumer goods. Substantial and increasing imports of raw materials had to continue to keep the wheels of industry turning. The disastrous harvests put an increasing toll on the balance of payments in the form of imports of grain and feed. Moreover, Poland is facing increasing shortages of energy and raw materials. Not only does it have to pay prices almost at the world market level to the USSR and contribute directly to the cost of development of resources there, but due to CMEA shortages it has to revert increasingly to Western raw materials and fuels markets. Like the investment rate, the hard currency debt grew probably beyond the proportions expected by the central planner. By the mid-1970's it was a matter of concern not only to the lenders but also to the borrower. The estimates of its size differ, but by 1978 it was estimated as being in the range of $ 15 billion, with further loans negotiated at the end of 1978 and in 1979. By 1980 the debt was estimated at nearing $ 20 billion, with an additional $ 5 billion credit sought in 1980 to finance current trade deficit and the servicing of the debt.[12] However, the burden of the debt and the increasing service charges were somewhat mitigated by the high rate of inflation in the West.

3. The new investment wave was motivated by two prerequisites: the need to create jobs for a large pool of young people coming of working age in the early 1970's and the need to expand the supply of consumer goods.[13] It was recognized that the workers had to be placated to maintain peace and elicit their support for the new regime and that increases in productivity need to be supported by palpable increases in the supply of consumer goods. However, contrary to Hungary, Poland did not resort to significant increases in the import of industrial consumer goods from the West.[14] To enlarge domestic output of consumer goods an increasing share of investment had to be devoted to expanding the underinvested and backward light and food industries.[15] The investment boom exploded as the pressures for additional investment from the traditional claimants were not controlled.[16] The boom was reinforced by the willingness of Western trade partners to grant loans (in search of clients in depressed times); investment decisions were often made ad hoc and the boom's momentum was not of the planner's design. The investment boom was accompanied by the well-known

[12] See the interview with M. Krzak, *The Journal of Commerce*, December 21, 1979.

[13] J. Glowczyk, *Zycie gospodarcze* 42 (Oct. 16, 1977) p. 2.

[14] J. Dabrowski, *Zycie gospodarcze* 12 (March 24, 1974), p. 7.

[15] W. Dudzinski, *Zycie gospodarcze* 6 (Feb. 7, 1971), pp. 1 and 10, and 29 (July 22, 1973) pp. 1 and 6; T. Gornicka, *Zycie Gospodarcze* 29 (July 18, 1976) pp. 1 and 2; Z. Dlugosz, *Zycie gospodarcze* 5 (Jan. 30, 1977), p. 7.

[16] On the spread of the investment boom see *Zycie gospodarcze* 1 (Jan. 2, 1977), p. 9.

enlargement of the construction front and the consequent freezing of resources in unfinished construction, delays in commissioning capacities, uninstalled machinery, and the like.[17] In fact the term "flexible planning" was coined to sanction a situation in 1971–75 where plan fulfillment reports far exceeded the postulated targets.[18]

4. In terms of dynamics of economic growth, Poland, which in the 1960's had been a laggard relative to other CMEA countries, moved to the forefront in the first quinquennium of the 1970's. According to Western estimates, by 1965 per capita GNP in Poland was $ 1,878 (constant 1978 dollars); it ranked fourth among its East European neighbors, behind Czechoslovakia, the GDR, and Hungary, but ahead of Bulgaria and Rumania. By 1970, this index increased to $ 2,213 (or by 18 percent), while Poland remained in the same relative position. By 1978, per capita GNP rose to $ 3,094 (or 40 percent over 1970) and Poland shifted to third position behind the GDR and Czechoslovakia, but ahead of Rumania, Hungary, and Bulgaria. In fact, Poland recorded the second highest growth rate of per capita GNP during the 1970–78 period, outdistanced only by Rumania (54 percent), but considerably ahead of the GDR and Bulgaria (32 and 31 percent respectively) and particularly ahead of Czechoslovakia and Hungary (both 22 percent), which is also borne out by the official statistics in Table 1. In 1965 Poland's per capita GNP was 82.9 percent of per capita GNP in Eastern Europe (100), moving up to 83.4 percent in 1970 and 87.2 percent in 1978.[19]

As illustrated in Tables 1, 2, and 3, relative to its past performance, 1971–75 was the period of highest average growth rates of national income, accumulation, fixed investment, and personal consumption since 1950. Industrial output registered slightly lower growth rates than in 1951–55 and average wages grew only at a slightly lower rate than during the short-lived (1956–57) period of consolidation after the Six-Year Plan. Growth rates and investment were maintained at relatively high levels in 1976 and receded sharply in 1977–79. Thus the remarkable growth performance of the first half of the 1970's was largely transitory and like other such periods was followed by a painful period of consolidation and costly shift. The much vaunted "economic maneuver" of 1977 was in fact nothing more than a shift to a lower geat forced on the central planner by accumulated and intolerable growth barriers (including foreign trade) and dislocations.[20]

[17] J. Mitrega, *Zycie gospodarcze* 10 (March 11, 1973), pp. 1 and 6; Dudzinksi, *Zycie gospodarcze* 49 (Dec. 9, 1973), pp. 1 and 4; Z. Zabowski, *Zycie gospodarcze* 14 (April 7, 1974), p. 7; W. Bien, *Zycie gospodarcze* 14 (April 4, 1976), p. 3; K. Rokoszewski, *Zycie partii* 11 (1978), pp. 2–4.

[18] The growth rates for increasing wages, investment, and imports postulated in the 1971–75 FYP were almost fully achieved by 1973. S. Chelstowski and M. Misiak, *Zycie gospodarcze* 42 (Oct. 21, 1973), pp. 1 and 4.

[19] T. P. Alton *et al.*, *Economic Growth in Eastern Europe, 1965–1978*, OP-54 (New York, 1979), p. 15.

[20] K. Kraus, *Zycie gospodarcze* 1 (Jan. 2, 1977) pp. 1 and 2; Z. Dlugosz, *Zycie gospodarcze* 6 (Feb. 6, 1977), pp. 1 and 2; *Zycie gospodarcze* 38 (Sept. 18, 1977) p. 2, F. Kubiczek, *Gospodarka planowa* 2 (Feb. 1978), pp. 53–55.

5. The growth rates of productivity in industry and construction were among the highest in CMEA. At the same time growth of nominal wages outpaced markedly growth of productivity. Attempts at decelerating growth of wages (especially in the latter 1970's) were mostly foiled.[21] Whereas in Poland in 1961–70 the average annual growth rate of value added (net output) per industrial employee was 5.1 percent and that of the average montly wage in industry 3.4 percent, the respective figures for 1971–75 were 8.0 and 9.3 percent and for 1976–77, 7.2 and 8.4 percent.[22] In the first part of the 1970's productivity growth could be attributed to some transitory factors such as better rate of utilization of vastly underutilized capacities in the late 1960's and larger imports of raw materials. There was also the deleted effect of new capacities coming into operation. In the latter part of the 1970's the productivity increases were primarily due to the commissioning of new investments that embodied the imported technology. However, the potential productivity gains were reduced due to the technocratic approach and fascination with sophisticated technology and gigantomania without adequate evaluation of investment efficiency, lack of complementarity in domestic production, obstacles to adaptation and diffusion of technical progress, delays in commissioning capacities, and increasingly acute shortages of raw materials and energy.[23] One of the conditions for the success of such a growth strategy is a continuous infusion of new technology and its adaptation and diffusion in all sectors of the economy. Given the downturn in the latter 1970's, the balance of payments strains and limits to borrowing, infusion of borrowed technology has been contained. The system-made obstacles to creative imitation and diffusion hamper the production and spread of domestic capital goods embodying technology of the latest vintage. Also the investment rate has been sharply pared down. The above, coupled with the obstacles to organizational progress (disembodied technical progress or improvements in management and efficiency) and the growing disenchantment of the population with improvements in living standards do not auger well for improvements in productivity in the 1980's.

6. Throughout the 1970's neither the quality nor quantity of consumer goods available on the market kept pace with the increasing nominal spending power and the disproportions grew in acuteness.[24] Strong inflationary pressures blinded the population to the considerable gains in consumption thereby reducing their favorable impact. Initially the Gierek regime benefitted from popular support which rapidly eroded as the shortages and unsatisfactory product mix of consumer

[21] Cf. W. Krencik, *Gospodarka planowa* 6 (June, 1978) pp. 293–301.

[22] *Rocznik statystyczny 1978*, pp. 132–33.

[23] Cf. *Zycie gospodarcze* 7 (Feb. 18, 1973) pp. 1, 5, 6 and 7; J. Buc, *Polityka* 17 (April 29, 1978) p. 6; A. Nalecz-Jawecki, *Zycie gospodarcze* 38 (Sept. 18, 1977), p. 7.

[24] Cf. S. Budziszewski, *Zycie gospodarcze* 1 (Jan. 7, 1973), pp. 1 and 2; M. Litmanowicz, *Zycie gospodarcze* 10 (March 10, 1974), p. 11; Z. Dlugosz, *Zycie gospodarcze* 38 (Sept. 22, 1974), pp. 1 and 2; D. Zagrodzka *Polityka* 19 (May 13, 1978), p. 6; Z. Kurowski, *Gospodarka planowa* 1 (Jan. 1978), pp. 6–10.

goods became more manifest. At the outset an attempt was made to divert spending power from food (especially meat) to industrial consumer goods. The success of this maneuver was limited because of deficiencies in the product mix, poor quality, and obsolete production.[25] Savings grew rapidly as consumers were postponing purchases and/or saving for the more expensive and hard-to-obtain durables such as cars and high-quality furniture and housing.[26] The maneuver was also unsuccessful for the official prices of meat and staple foods were frozen at the pre-1970 levels. When an attempt to use the allocative function of the purse was made—a steep increase of meat prices by about 60 percent was announced in June, 1976—it had to be rescinded without having been implemented to pacify the rioting workers who were on the brink of a revolt on the scale of December 1970. Since then there has been much discussion of the need to raise the prices of meat (which the state subsidized by more than 70 percent), but the regime seems to be fearful of tackling this explosive issue.[27] As a stop-gap so called commercial stores were set up to sell less than 10 percent of total retail meat sales (but more than 30 percent of total quality meat sales) at prices far exceeding those in official regular retail trade.[28] This is also an attempt at curtailing the proliferating black market. Besides official price increases of other foodstuffs and energy, the government sanctions all sorts of disguised price increases (spurious product differentiation, so called novelties, etc.) in other consumer goods in an attempt to mop up purchasing power.

7. In Poland the supply of meat to the consumer-worker is one of the critical and politically sensitive issues. The income elasticity for meat has been estimated to range between 0.6 and 1. The success of the growth strategy in the early 1970's was in large measure supported by the initial large imports of meat and the good harvests in 1971–73 and the initial effects of the raised purchase prices for meat which encouraged raising of livestock, in contrast to the ill-fated Gomulka policy of self-sufficiency in grain production which resulted in a sharp decline in livestock and consequently of meat production. One of the cardinal errors of the policy-makers was their perennial overoptimism which prevented them from creating the necessary reserves to mitigate the effects of the easily foreseeable poor harvests of the mid and latter 1970's. The disastrous agricultural situation of that period was also due, *inter alia*, to the erosion of the initial price incentives, relative price disincentives for grain production,[29] discriminatorily meager allocation of invest-

[25] *Zycie gospodarcze* 31 (Aug. 5, 1973) pp. 1 and 4.

[26] E. Wieczorek, *Zycie gospodarcze* 11 (March 17, 1974), pp. 1 and 2; M. Kucharski, *Zycie gospodarcze* 13 (March 30, 1975), p. 8.

[27] J. Glowczyk, *Zycie gospodarcze* 27 (July 4, 1976), pp. 1 and 2, 28 (July 11, 1976) pp. 1 and 2, and 29 (July 18, 1976) pp. 3, 15; S. Chelstowski, *Zycie gospodarcze* 28 (July 11, 1976) pp. 1 and 3: Z. Dlugosz, *Zycie gospodarcze* 31 (Aug. 1, 1976) pp. 1 and 2. On state subsidies for food see A. Wiatrowski, *Trybuna ludu*, April 18, 1978.

[28] *Notatnik lektoca*, July 3, 1978; A. Kowalik (interview with), *Trybuna ludu*, Aug. 4, 1978.

[29] M. Makowiecki, *Zycie gospodarcze* 26 (June 27, 1976) pp. 1 and 2; A. Wos (interview with), *Zycie gospodarcze* 36 (Sept. 5, 1976) pp. 1 and 2.

ment and other inputs both in qualitative and quantitative terms to private farming (which supplies the bulk of marketable agricultural products and is relatively more efficient) and preferential treatment of the relatively inefficient state farms, and the intensified exit of young people from agriculture.[30] Despite the frequent upward adjustments of procurement prices, the series of bad harvests created critical shortages of meat and grain which necessitated ever increasing imports, aggravating the balance of payments, particularly with the West.

8. The record-breaking share of accumulation in national income was primarily diverted to productive (growth and export promoting) investment. The previously neglected housing and infrastructure suffered further underprivileged position. The shortage of housing was particularly acutely felt by a population which considered imporovement of housing conditions as a major welfare-enhancing factor and which consisted of a large share of the post-war baby boom setting up new households in the 1970's.[31]

9. The ebullient industrialization drive and proliferating shortages intensified semi-legal and illegal activities and manipulations. Economic crimes and corruption were spreading.[32] Privileges in the form of access to better supply, hard currency, special health and resort services, housing, etc. perpetuated the glaring stratification of society.[33] The latter was reinforced by very large income differentials that were apparently not related to qualifications and productivity.[34]

10. The leadership was unwilling and/or unable to take the concomitant measures necessary for the success of the import-led growth strategy. While the accent was on intensive growth factors, the central planner did not control and contain the monentum of the investment rate compatible with the capacity of the economy to absorb it.[35] The previously noted barriers to overinvestment arose and bottlenecks proliferated. Under conditions of a supply-constrained high pressure economy and interruptions of flows between successive stages of production, adaptation and diffusion of technical progress was inhibited and production factors were underutilized. The disappointing technical advancement and other qualitative improvements were also partly due to a lack of the necessary system changes.

As could be expected the high pressure economy of 1971–76, the technocratic approach, and absence of real redesign of the system reduced sharply the potential returns of the investment effort and import of superior technology. Nevertheless, despite the time lags and technical snags, the partial rejuvenation of capacity is

[30] M. Makowiecki, *Zycie gospodarcze* 5 (Jan. 30, 1977) pp. 1 and 2.

[31] Cf. T. Gornicka, *Zycie gospodarcze* 8 (Feb. 20, 1977) p. 3; J. Sadyba, *Zycie gospodarcze* 15 (April 10, 1977), p. 5; L. Kowalczyk, *Zycie gospodarcze* 17 (April 24, 1977) p. 5.

[32] J. Festyr, *Zycie partii* 6 (1977), p. 13.

[33] Cf. A. Tymowski, *Polityka* 20 (May 20, 1978) p. 4; K. Czabanski, *Polityka* 15 (April 15, 1978) p. 3; J. Urban, *Polityka* 13 (April 1, 1978) pp. 1 and 4.

[34] Cf. D. Kopycinska, *Zycie gospodarcze* 8 (Feb. 25, 1973), p. 8.

[35] Cf. S. Olszowski, *Zycie gospodarcze* 1 (Jan. 2, 1977), p. 7.

likely to have consequential effects on the economy's capacity to produce. Whatever its benefits, "one-shot" infusion of technology is insufficient. This, novel for Poland, import-led growth strategy would probably have been much more effective had the investment rate been more gradual and sustained over time and accompanied by complementary measures, so that the growth barriers would have been overcome or at least not allowed to become insurmountable.

The University of Tennessee

Postscript

This paper was written before August 1980. Inevitably, it does not include the acute manifestations of the growth barriers that have come to light in 1981. A moderate and objective analysis of the misguided policies of the 1970s, even based on the solid Kaleckian analysis of growth processes in a planned economy, as outlined in this paper, could not foresee the intensity and severity of the crisis in the 1980s. While the argument that runs through this paper remains valid in regard to the dangers of such a growth strategy, it is only now that the full extent of the blunders committed in the 1970s is known. It is with great sadness that an economist (social scientist) watches a laboratory experiment on such a scale and at such a high social cost, that proves the general thrust of his analysis. For perhaps one of the noble duties of our profession is to prevent such calamities by showing the negative repercussions of certain policies. But the warnings have to fall on willing ears. In a sequel paper, I intend to deal with the Polish economic crisis of the 1980s and alternative ways out of it.