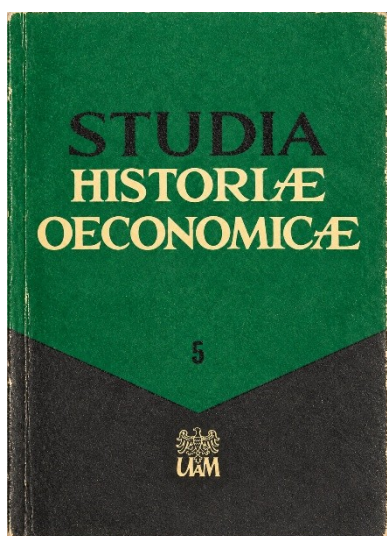




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THE DIRECTIONS OF THE ECONOMIC DEVELOPMENT OF PEOPLE'S POLAND IN THE YEARS 1944 - 1969

Poland entered the 1918 - 1939 period as a country belated in economic development. Her level of production per capita was much behind the most developed countries. This was a result of a number of objective factors, such as: absence of an independent state for more than a hundred years, prolonged supremacy of big land-ownership in the political and economic life of the country and vestiges of feudal economy connected with it, the weakness of the native bourgeoisie, late beginning of industrialization, etc.¹ The situation was aggravated by war destruction during the Great War. The war damage was estimated to have amounted to 73 milliard French francs in gold².

Even after the reconstruction, at a time of high level boom conditions in 1929, the value of a year's production per capita was 610 zloty, whereas the world average was 740 zloty and in the case of highly developed industrial countries 2490 zloty (e.g. in Britain with Ireland it amounted to 1760 zloty)³. If we assume the level of Poland as representing 100, the average value of production in the world was 121, in Britain 288, in highly developed countries in general 408 respectively. This situation was not radically changed till the

¹ More about the economic situation of those times, cf.: Z. Landau, J. Tomaszewski: *W dobie inflacji (In the Times of Inflation)*. Warszawa 1967; E. Rose: *Bilans gospodarczy trzech lat niepodległości (The Economic Balance of Three Years of Independence)*. Warszawa 1922.

² Cf. W. Grabski: *Wyjaśnienia dotyczące ratyfikacji Traktatu Pokojowego z Niemcami i umowy Wielkich Mocarstw z Polską. Ścisłe poufne (Explanations Concerning the Ratification of the Peace Treaty with Germany and the Agreement of the Great Powers with Poland. Strictly Confidential)*. Paris 1919. Annexes 2a and 2b. For a more extensive treatment of the war damage in Poland, cf.: J. Bankiewicz, B. Domosławski: *Zniszczenia i szkody wojenne (War Destruction and Damage)*. In: *Polska w czasie Wielkiej Wojny (1914 - 1918)*, vol. III — *Historia ekonomiczna*, Warszawa 1936, pp. 1 - 57.

³ L. Landau: *Gospodarka światowa. Produkcja i dochód społeczny w liczbach (World Economy. Production and Social Income in Figures)*. In: L. Landau: *Wybór pism*. Warszawa 1957, p. 415; *Mały Rocznik Statystyczny (The Concise Statistical Annual)* 1939, p. 67.

outbreak of World War II. During the 1930 - 39 decade Poland attained world tempo of industrial production growth only during two years (1938 and 1939). In the other years production growth was behind that of world economy⁴. In other words the distance dividing Polish economy from highly developed countries increased instead of diminishing, in spite of efforts of the community and the government towards overcoming the existing backwardness⁵.

World War II, by causing immense destruction in the territories of Poland still deepened the gap between the Polish and the world economy. The country lost in killed in action and murdered people 6 million of its inhabitants, national property losses amounted to 48 million dollars, i.e. 39 per cent of its pre-war total value⁶. Even if we assumed a production freeze in the highly developed countries during the war, the gap between Poland and those countries would still widen, owing to the tremendous war destruction in this country. And, as we know, actually agricultural and industrial production grew in many countries in the 1939 - 45 period.

Hence Restituted Poland had to face not only the problem of reconstruction, but also that of increasing the tempo of growth in order to arrive as near as possible to the most advanced European countries and thus to ensure a continuous increase of national income and at the same time, in a perspective to attain an increase of the living standard of the nation. This was not only a very ambitious but a very hard task as well.

In Poland the beginning of the reconstruction period coincided with the increase of her participation in the war with Germany. The participation of this country in the final stage of the anti-Nazi hostilities was not confined to the mobilization of an army of 446 thousand men (apart from the Polish forces in Western Europe), but included a heavy burden of expenditure and supplies⁷.

⁴ Cf.: L. Landau: *Gospodarka Polski na tle gospodarki światowej 1913 - 1938. Uwagi ogólne (Poland's Economy as Seen against the Background of World Economy, 1913 - 1938. General Discussion)*. In: *Przegląd Historyczny* 1968, No. 2, p. 266.

⁵ For a wider treatment of those efforts cf.: M. Drozdowski: *Polityka gospodarcza rządu polskiego 1936 - 39 (The Economic Policies of the Polish Government 1936 - 1939)*. Warszawa 1963; A. Jezierski, S. Zawadzki: *Dwa wieki przemysłu w Polsce (Two Centuries of Industry in Poland)*. Warszawa 1966.

⁶ *Sprawozdania w przedmiocie szkód i strat wojennych Polski w latach 1939 - 45 (Reports on the War Losses and Damage of Poland, 1939 - 1945)*. Warszawa 1947; *Straty wojenne Polski w latach 1939 - 1945 (War Losses of Poland in the Years 1939 - 1945)*. Poznań 1962; *Sytuacja gospodarcza Polski (Poland's Economic Situation)*. Warszawa 1947, p. 107; *Rocznik Statystyczny (Statistical Annual)* 1947, p. 51.

⁷ W. Sztemienko: *Sztab Generalny w latach wojny (The General Staff during the War)*. Warszawa 1969, p. 10. W. Jurgielewicz presents the status for May 1st 1945 as comprising 338,716 men. W. Jurgielewicz: *Organizacja Ludowego Wojska Polskiego 22 VII 1944 - 9 V 1945 (The Organization of the Polish People's Army July 22nd 1944 - May 9th 1945)*. Warszawa 1968, p. 415.

When the war ended new problems arose among which the following were the most important: speeding up the reconstruction, beginning the integration of the Recovered Territories with the rest of the country and the organization by the state of mass migrations of population⁸.

To illustrate the enormous tasks of those days one must recall that 65 per cent industrial enterprises and 25 per cent agricultural buildings were destroyed, the number of horses fell by 56 per cent and that of cattle 66, sheep 64 and pigs 82 respectively. Fallow grounds as late as in 1946 still amounted to 40 per cent of arable grounds. One third of railway lines was destroyed, and so were 66 per cent of the length of bridges and 80 per cent of railway engines and carriages⁹. The task of reconstruction was enormous.

At the same time large masses of population had to be resettled. Organized migration movements amounted in the postwar years to 9 million people. The necessity of re-settling such great numbers of people resulted from the changes of the state frontiers, i.e. from taking over by the USSR of the territories east of the Curzon line and receiving the historic Polish lands in the west and in the north. As a result of frontier shifts 2 million Germans were resettled from Poland. Half a million Ukrainians and White Russians resettled in the USSR and at the same time 2.5 million Poles were repatriated from Germany and 1.5 million from the USSR. In order to resettle the Recovered Territories c. 2.5 million people migrated there from the territories of central and southern Poland¹⁰.

Taking over the Recovered Territories made it potentially practicable for Poland to speed up economic growth. Those lands were characterized by a higher infrastructure, they were more industrialized than the eastern territories returned to the USSR¹¹. But at the same time these were the lands most

⁸ For a wider treatment cf.: I. Kostrowicka, Z. Landau, J. Tomaszewski: *Historia gospodarcza Polski XIX i XX wieku (The Economic History of the Nineteenth and Twentieth-Century Poland)*. Warszawa 1966, p. 425 and ff.; J. Gołębiowski, J. Tomaszewski: *Odbudowa i rozwój gospodarczy Polski w latach 1944 - 49 (The Economic Reconstruction and Development of Poland 1944 - 1949)*. In: *Z dziejów Polski Ludowej*. Warszawa 1966.

⁹ Cf.: note 6.

¹⁰ For a more extensive treatment cf.: S. Banasiuk: *Działalność Osadnicza Państwowego Urzędu Repatriacyjnego na Ziemiach Odzyskanych w latach 1945 - 47 (The Activities of the State Re-Patriation Office in the Recovered Territories 1945 - 1947)*. Poznań 1963; K. Kersten: *Migracje powojenne (Post-War Migrations)*. In: *Polska Ludowa* 1963, No. 2; R. Zieliński: *Ruchy migracyjne między Odrą a Bugiem w latach 1939 - 50 (Migration Movements between the Oder and the Bug Rivers, 1939 - 1950)*. In: *Studia i rozprawy ZAP* 1960, No. IX.

¹¹ Cf.: e.g. H. Jędruszczakowa: *Niektóre zagadnienia sytuacji gospodarczej Polski w latach 1945 - 49 (Some Problems of Poland's Economic Situation in the Years 1945 - 1949)*. In: *Kwartalnik Historyczny* 1964, p. 370. Paper entitled: *Zdolność produkcyjna obszaru gospodarczego Polski w granicach 1945 roku (The Production Capacity*

devastated by war and required enormous reconstruction expenditure without which it was impossible to expect a quick speeding up of production. While the level of destruction of factories was 65 per cent for the rest of the country, in the Recovered Territories the rate amounted to 73 per cent¹². The incorporation of the Recovered Territories, did not counterbalance the losses of national property sustained as a result of the war, owing to this high devastation rate. This can be seen if we compare the level of the national income in the years 1938 and 1946 respectively. In 1946, i.e. in the second year of the reconstruction period it reached only 67 per cent of that attained in 1938¹³.

In spite of the fact that the country was faced with so many and so complicated tasks industrial production grew at a very high rate. In April 1945 it was estimated to have attained 17 per cent of the 1938 level and in December 1946, in accordance with different estimate methods it reached 77 - 100 per cent of that figure¹⁴.

Apart from the tremendous effort of the nation this was a result of the social revolution that took place in Poland after the war. That revolution helped to overcome two bottlenecks of Polish pre-war economy hampering the development of national economy. On the one hand it increased the absorptive power of the home market and on the other hand it made possible a division of national income which was more favourable to the interests of the country. The widening of the home market was a result of the land reform and distribution among the peasants both in the Recovered Territories and in the rest of the country of c. 6 million ha of land and of annulling of the pre-war debt of the Polish agriculture¹⁵. The growth of the affluence of the rural population constituting 68 per cent of the inhabitants of the country as a whole¹⁶ ensured the possibility of long term growth of production without fear of a lack of demand. At the same time the nationalization of industry made it possible for the state to use the profits of industry for more general state purposes¹⁷ and freed the country from its dependence on foreign capital located in its

of Poland in Her 1945 Frontiers). In: Archiwum Akt Nowych, zespół Centralny Urząd Planowania, vol. 3095.

¹² Rocznik Statystyczny, 1947, p. 72.

¹³ The authors' own estimates.

¹⁴ Rocznik Statystyczny, 1947, pp. 2 - 3; Sytuacja gospodarcza Polski..., p. 73.

¹⁵ For a more extensive treatment cf.: W. Góra: Polska Partia Robotnicza w walce o podział ziemi obszarniczej (*The Polish Workers' Party in the Struggle for the Division of the Big Land-owners' Grounds*). Warszawa 1962; H. Słabek: Polityka agrarna Polskiej Partii Robotniczej. Geneza i rezultaty (*The Agrarian Policies of the Polish Workers' Party. Its Origin and Results*). Warszawa 1967.

¹⁶ Rocznik Statystyczny, 1967, p. 22.

¹⁷ For a more extensive treatment cf.: J. Gołębiowski: Walka Polskiej Partii Robotniczej o nacjonalizację przemysłu (*The Struggle of the Polish Workers' Party for the Nationalization of Industry*). Warszawa 1961.

industry¹⁸. This made possible to increase the accumulation of means for the reconstruction and expansion of Polish economy. This process was enhanced by the monopolizing of foreign trade¹⁹ and by a systematic increase of the share of the state and co-operative enterprises in the internal turnovers²⁰. The increase of the role of the state in turnovers militated against a take over of a part of the national income produced by state and co-operative enterprises by the non-state and non-cooperative sector and lowered, by liquidating the go-between links, the costs of exchange. Thus it also helped to increase the means accumulated for investment purposes. The development of the socialized sector made it possible to develop complex economic planning which was, in the conditions of a backward country, one of the factors of a fast economic growth.

The transformations thus achieved provided for a good starting point for the reconstruction and later on, expansion of national economy. At the initial stage all the resources were used for reconstruction. But already during the implementation of the first long-distance plan (1947 - 49) the problem of establishing further directions of development arose. The victory of a social revolution made a return to capitalist economy impossible. But the decision of following the socialist path of development did not by itself establish what directions of development should be followed.

In the discussions on the pattern of Polish economy, the Polish Workers' Party and the Polish Socialist Party, were in agreement that there was a necessity of industrializing the country and of changing its structure from agricultural-industrial into industrial-agricultural. That was the only way of eliminating unemployment in the towns and overpopulation in the rural areas, the two major problems of Poland between the wars. Industrialization was also the only way of speeding up economic growth. Rather essential differences in opinion concerning the choice of directions and tempo of development were

¹⁸ For a more extensive treatment cf.: Z. Landau: *The Influence of the Foreign Capital upon Polish Economy of 1918 - 1939*. In: *La Pologne au XII^e Congrès International des sciences historiques à Vienne*. Warszawa 1965, pp. 133 - 145; В. А. Виноградов: *Вопросы теории и практики социалистической национализации промышленности*. Москва 1965.

¹⁹ Cf. for a wider treatment: J. Krynicki: *Problemy handlu zagranicznego Polski 1918 - 39 i 1945 - 55 (The Problems of Poland's Foreign Trade 1918 - 1939 and 1945 - 1955)*. Warszawa 1958.

²⁰ For a more extensive treatment cf.: J. Kaliński: „Bitwa o handel” — założenia, dyskusja, realizacja (*“The Battle of Trade” — Assumptions, Debate, Implementation*). In: *Polska Ludowa* 1968, No. 7.

²¹ The publications concerning economic plans and their implementation are so numerous that the authors of the present article must delegate their readers to a special bibliography entitled, *Planowanie gospodarki narodowej w Polsce Ludowej. Materiały do bibliografii (Planning of National Economy in People's Poland. Materials for a Bibliography)*. Warszawa 1964, vols I - II.

the subject of discussions. For example, a group of economists connected with the Central Planning Office of that time²² postulated a greater concentration of investment in the development of the processing and mainly light industries, in order to increase the production of consumer goods as quickly as possible. The Polish Workers' Party postulated the emphasis to be transferred to heavy industry as a basis which was indispensable for an enduring development of the other branches of national economy. The Polish Workers' Party declared a much faster industrial development programme than that of the Polish Socialist Party.

The conception of the PWP finally vanquished. It was more ambitious and more difficult in its realization. The development of heavy industry, which was, as a rule, requiring more capital and long-term investment, did not in any direct way influence a speedy rise of the living conditions of the community. It produced effects which could be felt only after a longer period of time when, on the basis of the heavy industry, the processing and light industries were developed. At the same time, however, that conception provided for the resources for the progress of the national economy as a whole, which would not be ensured by a one-sided development of the processing industry. Hence from a point of view of a perspectivist, long-term trend of growth the conception of the PWP was better in spite of the fact that its immediate results did not cause any improvement in the conditions of life of the population in a short term fashion and even could cause a transitory deterioration. Nevertheless, if the objective was the diminishing of the gap dividing Poland from the highly developed countries, the development of which was also very dynamic after World War II, this choice of direction in investment was indispensable.

The PWP conception was the basic assumption of the six-year plan (1950 - 55) which postulated a rather one-sided, but speedy development of heavy industry with a much weaker financing of light industries and agriculture. In the six-year plan such industries as iron and steel and aluminium and copper metallurgy, machine tool, mining machinery, electric power station plant, ship-building, automotive, tractor, and big chemical synthesis were given priority in construction and development.

As a result of the outbreak of Korean War in 1950 the participation of armament and heavy industries in the plan was increased. This brought about serious disproportions in the national economy, such as: a fall of real earnings of the population, a wrong proportion between the production of capital goods and consumer goods and an agriculture lagging behind the needs of the country. This lagging behind of agriculture was opposed by means of collectivization,

²² The Central Planning Office was established in October 1945 as the first organ of central state planning in Poland.

but those methods failed to bring about positive effects in Polish conditions. As a result the plan underwent amendments in 1954 tending to remove those disproportions. Among the measures applied were such as a reduction of investment and their more proportionate distribution in the various branches of national economy which resulted in some slowing down of industrial growth tempo and at the same time in some increase of the participation of light industries in that growth. The general direction of economic policies was, however, adhered to and only the tempo of their implementation was slowed down.

When the subsequent economic plans were made the experience of the six-year plan was taken into consideration and a more proportionate and equal development of the national economy was stipulated. The collectivization of agriculture was given up. The first five-year plan (1956 - 60) in its initial stage (till 1958) was a continuation of the policies introduced in 1954. That plan aimed above all at liquidating the amassed disproportions. This resulted in a limitation in investment and slowing down of the increase of employment. The production growth at that time was attained to a considerable degree by means of starting production in newly opened industrial enterprises the construction of which had been started in the years 1950 - 55.

In order to keep the high tempo of the development of the country, a decision was made in 1959 to increase gradually the investment in industry. The construction of enterprises which had been started within the scheme of the six-year plan was in most cases completed and only new investment could provide for a speedy growth of production. That is why the last years of the plan (1959 - 60) were characterized by an increase of industrial investment which was channelled mainly to raw material and heavy industries. Those years were to prepare the implementation of the next five-year plan, which was subordinated to a great very numerous age group of the so called demographic explosion and to the activization of exports the low level of which began to hamper the tempo of development. As early as in 1959 - 60 there was another change in the proportions between the development of the industry producing capital goods on the one hand and that producing consumer goods, on the other hand, branch "A" being again privileged. Main attention was paid to the development of power and fuel and raw material industries, because if those industries were allowed to lag behind the processing industries, further development of national economy might have been endangered. The 1961 - 65 five-year plan was an expression of those objectives. "That was a plan of a quickened development of the production forces of the country, when compared with that of the 1956 - 1960 period, which was based upon a return to speeding up the development of the production basis of the national economy" ²³.

²³ A. Karpiński: *Zarys rozwoju gospodarczego Polski. Fazy rozwoju. (An Outline*

The third five-year plan (1966 - 70) while stipulating a further quantity growth of production, emphasized much more than the previous plans the necessity of improving the quality and modernity of the products.

To characterize the changes in the directions of investment it is worth while to study the data of the industrial investment structure in the periods under discussion (Table 1).

Table 1
Structure of Investments in the Years 1947 - 70

Branch of industry	1947— 1949	1950— 1953	1954— 1955	1956— 1958	1959— 1960	1961— 1965	1966— 1970
power	11.8	9.0	10.4	11.9	11.1	12.1	10.4
fuel	22.1	16.7	17.5	19.7	18.2	27.8	17.7
metallurgy	14.0	19.1	23.2	13.3	11.7	11.8	11.6
tool and engineering	14.2	19.6	14.6	14.3	14.7	15.5	15.7
chemical, rubber	9.1	12.6	15.1	13.1	11.2	12.1	17.9
construction							
materials	6.6	5.8	4.7	8.7	10.2	7.8	7.5
light and food-stuffs	18.0	11.6	9.6	13.3	17.3	13.6	12.9

The source: A. Karpiński; *Zarys rozwoju gospodarczego Polski Ludowej-Fazy rozwoju (An Outline of the Economic Development of People's Poland - Stages of Development)*. Wyd. II. Warszawa 1968, pp.: 16, 30, 46, 61, 71.

One can easily recognize the changes in investment trends from table 1. Thus, e.g. in as much as metallurgy is concerned, it concentrated most of the expenditure of the six-year plan, whereas in the subsequent plans priority was shifted to the fuel, chemical and engineering industries. This was simply because after having created sound metallurgic foundations it was possible to divert means to other objectives, mainly those of engineering and raw material industries.

The above discussed structure of expenditure brought about a much faster development of the means of production than means of producing consumer goods. Starting with 1946 as 100 we can note that production of the former reached 2063 per cent and that of the latter 1280 per cent by 1967²⁴. The proportions in the structure of industry also were changed, which can be seen in table 2.

All this was a result of a deliberate conception of development which assumed the priority of long-term objectives over short-term effects in the rise of the living standard. In Poland as in all countries characterized by a policy

of the Economic Development of People's Poland. Stages of Development). Ed. II, Warszawa 1968, p. 53.

²⁴ *Rocznik Statystyczny* 1968, pp. 38* - 39*.

Table 2

The Structure of Total Production of Selected Industries in the Years 1950 - 67
(in percentages)

Branch of industry	1950	1960	1967
production of electric and thermic power	1.8	2.2	2.4
fuel industry	16.4	9.6	7.6
metallurgic industry (foundries)	11.1	10.2	9.4
electrotechnical and engineering industry	3.3	9.1	13.1
transport means	2.8	6.6	9.6
metal industry	1.9	4.2	5.2
chemical industry	3.8	6.3	9.1
construction materials	2.6	3.4	3.2
timber industry	3.8	4.2	3.6
textile and clothing industry	13.1	12.5	10.8
leather industry	2.6	2.5	1.9
food-stuffs industry	32.7	24.3	18.3

The source: Rocznik Statystyczny 1968 (*Statistical Annual 1968*) p. 110.

of an intensive expansion of heavy industry, the burden of the investment caused the necessity of limiting the tempo of the consumer fund. Nearly as a rule, because of the high level of accumulation, the consumer fund was growing less quickly than national income. Even slower than the total consumer fund was the increase of individual real wages, which was a corollary to the continuous increase of employment in industry. In Poland, to a greater extent than in highly developed countries, the growth of production was accompanied by the increase of the number of employees. In the years 1947 - 49 and 1954 - 58 real wages increased within the 3 - 5 per cent a year, in the years 1950 - 53 they were falling and in other periods they were rising within 1 - 2 per cent a year²⁵.

On the basis of the above presented discussion one can recognize four distinct stages in the economic development of People's Poland. The first one, which came to a close in 1948, was devoted to economic reconstruction, the second, comprising the period of 1949 - 58 was characterized by the construction of heavy industry as basis for the other branches of the national economy, the third one (1959 - 1965) gave priority to the development of the raw material, fuel and power resources and to the adaptation of industries to export purposes. The last stage was characterized by emphasis on quality and up-to-date standards of industrial production and by the adaptation of the profile of industries to home and export needs²⁶.

²⁵ A. Karpiński: *Zarys rozwoju...*, p. 149. For a more extensive treatment of the subject cf.: K. Ryć: *Spożycie a wzrost gospodarczy Polski (Consumption and Poland's Economic Growth)*. Warszawa 1968; M. Kucharski: *Pieniądz, dochód, proporcje wzrostu (Money, Profits, Rates of Growth)*. Warszawa 1964, p. 372.

²⁶ For a more extensive treatment cf.: A. Karpiński, *Zarys rozwoju...*

The development of agriculture and industry required the development of infrastructure. This was an indispensable condition of ensuring a more equal dislocation of industry and opening up or activization of some backward regions of the country. Not only the economic but also the social infrastructure had to be re-built, although a lot was done in that sphere in Poland between the wars. This was a corollary to the demand of the national economy for qualified personnel. That is why so much emphasis was directed to the development of all types of schools in People's Poland. In the first steps illiteracy was nearly completely eliminated. The next step was the implementation of the principle of compulsory primary education for all the children of the country and an expansion of secondary and higher education. The increase of the number of graduates and alumni shows the results in the best way. In the 1936/37 academic year there were 6,100 graduates and in the 1967/68 academic year (while the number of population in the sixties was smaller) there were 31,900 graduates. There were 41,100 alumni of vocational schools in 1937/38 academic year and 393,800 in the 1966/67 academic year. The corresponding numbers for the alumni of grammar schools were 14,000 and 83,200 respectively²⁷. That was how this country was supplied with qualified manpower.

The over-all index of change in Polish economy in the 25 years after the war was a speedy growth of the national income and the diminishing of the gap dividing the industrial production of Poland from the highly developed countries.

Investigations of economic potential by means of the index of growth of national income can be effected either by comparisons in time or in space. It seems to us that the initial estimate which would be most convenient for further investigation would be best served by the assumption of national income counted in unchanged prices per capita.

Table 3
National Income Per Capita in the Prices of 1961
(1950 = 100)

1929 — 50	1948 — 76	1960 — 173
1937 — 51	1949 — 88	1965 — 221
1947 — 59 ²⁸	1955 — 137	1967 — 246

The source: Years 1947 - 1967 — *Rocznik Statystyczny* 1968 p. 76. Years 1929 - 1937 the authors' own estimate based upon discussions and the calculations of L. Zienkowski: *Dochód narodowy Polski 1937 - 1960 (The National Income of Poland 1937 - 1960)*. Warszawa 1963, pp. 343 - 345.

With the exception of the years 1946 - 1949, a period in which the high

²⁷ *Rocznik Statystyczny* 1968, pp. 418 - 419. In 1946/47 there were 12.3 thousand graduates of institutions of higher education, 40.9 thousand alumni of vocational schools and 12.3 thousand alumni of grammar schools.

²⁸ In 1947 the national income was about 20 per cent lower than in 1937. The increase of the national income per capita index resulted from the decrease of Poland's population by nearly 11 million people.

percentage of national income resulted from the speedy reconstruction of economic installations destroyed or damaged during the war, the years 1951 - 1955 were characterized by the greatest average annual growth which comprised 8.6 per cent²⁹. The per capita index does not, of course, show it, because in those five years there was taking place a record increase of population amounting to more than 19 per cent.

The lowest average annual growth of national income fell upon the years 1961 - 1965 and it comprised 6.2 per cent³⁰. When we estimate the dynamics of the growth of national income in post-war Poland we may note three facts. Firstly, the growth of national income is incomparably higher than it was between the wars. Secondly, if we take into consideration the periods of long-term plans, that increase is evenly distributed in time, without serious fluctuation. Thirdly, the most considerable growth took place in the first stage of industrialization, that is to say in conditions of a comparatively low starting point.

There is not any doubt as to the existence of a speedy growth of national income in Poland. Nevertheless, it is not until we compare it with that of other countries that we can establish whether that increase was typical of all the countries of the world after the war, or greater in Poland than in other countries. In order to establish the degree of Poland's backwardness, let us make Great Britain our reference point. If we accept the national income, counted in current prices, per capita in Poland as 100 per cent, the corresponding index for Great Britain will compare as follows:

about 1865 — 875 per cent³¹
 1929 — 288 per cent³²
 1967 — 190 per cent³³

²⁹ Calculated by means of the mean geometric.

³⁰ As above.

³¹ The authors' own calculations on the basis of P. Deane: *Contemporary Estimates of National Income in the Second Half of the Nineteenth Century*. Economic Review. Vol. IX, No. 3, pp. 458 - 459; A. Jezierski: *Handel zagraniczny Królestwa Polskiego 1815 - 1914 (The Foreign Trade of the Kingdom of Poland 1815 - 1914)*. Warszawa 1967, p. 99. This may be seen even more clearly when we compare the indices of economic development.

Indices Illustrating Economic Development about 1850

	Great Britain	Kingdom of Poland	Relation
Coal output in kilograms per capita	1,635	28	58 : 1
Pig iron output per capita	105	4	26 : 1
Cotton consumption in kilograms per capita	20	0.1	200 : 1
Foreign trade turnovers per capita in silver roubles	37.2	3.2	11 : 1

The source: A. Jezierski: *Handel zagraniczny Królestwa Polskiego 1815 - 1914*, pp. 95, 101.

The period in which the diminishing of the gap was most speedy were the fifties. This may be clearly seen when we compare the dynamics of the national income in fixed prices, per capita, accepting 1950 as 100 we shall arrive at the conclusion that the figure of growth for Poland in 1967 will be 246, and for Great Britain 148³⁴.

Difficulties in the comparison of the indices of growth of Poland and the United Kingdom result both from the difference of the economic systems of the two countries, from the difference in the structure of prices and from the difference in the methods of estimating the national income. Witold Kula, when discussing comparisons of national income in time and space, rightly pointed out that "Researches in national income are an immensely helpful tool in the work of an economic historian. The comparisons of those researches in time and space must be made, although it is true that the data are comparatively fuller (a) for countries highly developed rather than for the backward ones, (b) for later periods rather than for earlier ones. This must cause an exaggeration of the span of the results. But this is not an autonomous method or a self-sufficient one. The results obtained by that method, and particularly comparisons of those results must be supplemented by other information. We cannot expect from those results more than they can yield"³⁵. Kula's warning is fully justified. The difficulty consists in the fact that analytical comparisons, unlike the synthetical gauge of the national income itself, are even more difficult in the case of difference between the two compared economic structures, particularly from the point of view of the selection of comparable indices.

One can compare in a geographical cross-section the consumption of food-stuffs and appliances, but one practically cannot compare the consumption of capital goods, machines, installations etc. Comparisons in time are even more difficult. Even in a short time, costs of production, technological parameters and the utilitarian value of goods undergo fundamental changes.

If we accept the national income per capita in Great Britain in 1850 as 100 per cent, the per capita national income of Poland was at that time as low as 11.4 per cent. In other words, one Briton produced 9 nine times as much national income as one inhabitant of the Kingdom of Poland.

³² The authors' own calculations on the basis of: *Mały Rocznik Statystyczny* 1939, pp. 66, 67. Estimates for 1913 are both those of S. Koszutski and those quoted by Colin Clark (*The Conditions of Economic Progress*. Third Edition. London 1957, p. 177) inadequate for comparisons.

³³ The authors' own calculations consisting in bringing the values down to the level of comparability.

³⁴ *Rocznik Statystyczny* 1968, p. 632.

³⁵ W. Kula: *Problemy i metody historii gospodarczej (The Problems and Methods of Economic History)*. Warszawa 1963, p. 331.

In such a situation the selection of indices comparable in time and space is a particularly complex one.

For the purposes of the comparison of the development of Poland and Great Britain we have selected the index of the increase of the production of electric power per capita, which in our opinion illustrates the level of economy in the most comprehensive way, production of steel per capita, indicating the potentialities of heavy industry and the production of cement per capita, which is the expression of the dynamics of construction work. As in the case of the comparison of national income, we have accepted the figures representing Poland as 100 per cent.

Table 4

A Comparison of the Production of Electric Power, Steel and Cement in Poland and Great Britain (Poland — 100)

Content	1913	1949	1967
Electricity	482	293	234
Steel	327	334	135
Cement	314	198	93

The source: 1913 — *Polska w liczbach (Poland in Figures)*. Warszawa 1962, p. 24;

1949 — *Rocznik Statystyczny 1956*, pp. 426 - 430;

1967 — *Mały Rocznik Statystyczny 1969*, pp. 374 - 388.

It is worth while noting that as early as in the years 1913 - 1949 Poland diminished the gap and backwardness in the production of electricity and cement, but the gap in the production of steel increased. In the years 1949 - 1967 the gap in steel smelting was diminished to a considerable extent and the gap in the production of cement ceased to exist and the comparatively big gap in the production of electricity was sustained³⁶.

Andrzej Karpinski presents an interesting estimate of the delay in the development of Poland in the production of basic manufactured goods per capita in terms of years as compared to Great Britain.

The economic policies of the state were the factor influencing the swift development of Poland's economy in the last twenty five years. As a result of the implementation of the policies of industrialization, the division of the national income was characterized by a large share of accumulation. These were the dynamics of the increase of accumulation:

It grew from 16 per cent to 28 per cent in the years 1949 - 1953 and within that figure investment grew from 11 to 16 per cent.

In the years 1954 - 1956 the share of accumulation fell to 21 per cent and within that figure the share of investment fell to 14 per cent.

In the years 1957 - 1959 the share of accumulation was stabilized at a figure of 23 per cent.

³⁶ *Mały Rocznik Statystyczny 1969*, p. 374; *Rocznik Statystyczny 1956*, p. 418.

Table 5

The Delay of Poland in the Production of Basic Manufactured Goods Per Capita

Poland Year	Great Britain The level of production per capita of Poland was reached in the year	Poland's retardation in develop- ment number of in years
1938	1867	71
1950	1881	69
1960	1917	43
1967	1950	17

The source: A. Karpiński: *Zarys rozwoju gospodrczego Polski Ludowej* Wyd. II. Warszawa 1968, p. 160.

Since 1960 the share of accumulation is rising and in 1968 the share was 28 per cent and within it for investment 22 per cent³⁷.

As we may conclude from the above presented data, interior accumulation was the fundamental factor of the growth of national income in Poland. That made it possible to attain development independent of foreign capital or foreign aid, but it resulted in a comparatively slower rise of consumption among the population. This can be easily concluded from the estimate of the divided national income (1961 prices).

Table 6

The Growth of Divided National Income, 1949 - 1968 (1950 = 100)

Years	Total	Consumption			Accumulation	
		Total	From personal income	Other	Total	Within it Investment
1949	87	92	92	91	65	74
1968	340	311	295	477	458	578

The source: *Mały Rocznik Statystyczny* 1969, p. 53.

The economic development of Poland brought about a fundamental transformation of the economic and spatial structure of the country. Let us start from the former.

Poland was a typically agricultural country in the nineteenth century. The industrial revolution of the second half of the nineteenth century brought about a transformation of the country from agricultural to agricultural-industrial. On the basis of the share of agriculture and industry in the creation of the national income we may assume that this transformation took place roughly in 1895. From that year until 1947 this structure was more or less stabilized. New changes began to make themselves felt during the socialist industrialization.

³⁷ *Rocznik Statystyczny* 1968, p. 77.

Table 7

The Structure of Produced National Income (1961 prices)

Year	Total	Industry	Building Trade	Agriculture
1937	100	29	5	52
1947	100	34	5	47
1950	100	37	8	40
1955	100	44	9	28
1960	100	47	9	23
1965	100	53	9	19
1968	100	—	—	—

The source: 1937 (1960 prices) — L. Zienkowski: *Dochód narodowy Polski 1937-1960*, p. 342; the years 1947-1968 *Rocznik Statystyczny 1968*, p. 76.

It can be established beyond doubt, on the basis of the structure of the production of national income that this country, which still had been of an agricultural-industrial character in 1937, had a definitely industrial-agricultural character by 1965. In both cases the basis of classification is that branch of national economy which shows an absolute predominance in the making of the national income.

The process of urbanization is also one of the most important indicators of the change that took place in Poland's economic structure. This is best illustrated by the data presented in table 8.

Table 8

The Population of Poland According to Censuses
(millions)

Year	Population Total	Towns		Countryside		Number of Inhabitants per square kilometer
		millions	per cent	millions	per cent	
1870*	17.0	2.8	16.0	14.2	84.0	44
1900	25.1	4.9	19.6	20.2	80.4	65
1921	27.2	6.6	24.6	20.2	75.4	70
1931	32.1	8.7	27.4	23.2	72.5	83
1938**	34.8	10.4	30.0	24.4	70.0	90
1946	23.9	7.5	31.8	16.1	68.2	77
1950	25.0	9.6	39.0	15.0	61.0	80
1960	29.8	14.2	48.0	15.4	52.0	95
1968**	32.4	16.6	51.2	15.8	48.8	104

* estimate

** estimate for December 31st

The source: *Mały Rocznik Statystyczny 1939*, p. 10; 1969, p. 17.

Owing to a century of industrial development the population of the towns increased by 14 million and the population of the villages by a mere 1.6 million. In spite of that the process of urbanization is highly belated in Poland as compared with industrial countries. As early as about 1890 the share of urban population in those countries was as follows: Britain 72 per cent, Germany 47 per cent, The United States 39 per cent, France 37 per cent.

World War II, during which Poland was under a German occupation, caused a process of disurbanization of this country. The number of urban population was diminished by nearly 3 million persons. This was caused not so much by war operations as by the genocide of the Nazi system.

From 1946 to 1968 the number of urban population increased by about 9 million persons, which corresponds roughly to the natural increase of population in this country. As may be judged from that, the number of rural population is more or less maintaining itself on the level of 15 - 16 million people.

The division into urban and rural population is a result of administrative division in this country and does not fully correspond to the vocational compositions of the population. What really matters is the ratio of population maintaining itself from agriculture on the one hand and from non-agricultural occupations on the other hand, to the total number of population.

Table 9

Transformations in the Basic Vocational Composition of the Population of Poland in the Years 1921 - 1967

Contents	1921	1931	1950	1960	1967
Total population in millions	27.2	32.1	25.0	29.8	32.4
Population maintaining itself from agriculture - in millions	16.7	19.1	11.6	11.2	10.7
in percentage	66.0	60.0	47.1	38.2	33.1

The source: *Maly Rocznik Statystyczny* 1969, pp. 28 - 29.

The proportions of the vocational composition of Poland's population of 1921 were reversed. The share of population maintaining itself from agriculture increased and became twice as big, i.e. it increased from 33 per cent to c. 66 per cent.

We note a continue decrease of population maintaining itself from agriculture since 1947, although the number of population living in rural areas is hardly changing at all. If we remember the serious growth of agricultural production, this indicates a slow but steady increase of productivity of work in agriculture.

The change in the spatial structure is a corollary to the development of particularly backward regions. In the last 25 years this has been expressed

in the diminishing gap between the economically most advanced and most backward regions.

Between the wars a division into four groups of voivodeships was applied in statistics: central, eastern, western and southern. Today a division into seven regions is the most common one: central, northern, mid-western, south-western, southern, south-eastern and north-eastern. In spite of the territorial changes of the state and of the regions, inter-regional differences indicate the degree of unequalness in the economic development of the country. The following elements may be regarded as the basis of comparisons: (1) The value of total agricultural production per 1 hectare of exploited ground, (2) The number of industrial workers in each 1,000 of population.

The value of the total agricultural production per 1 hectare of exploited ground in possession of farms below 50 hectares averaged in Poland in the years 1934 - 1937 — in current prices — 231 zł per annum. If we accept the average for this country as 100 per cent, we shall find that the figure for the western region will be 122 per cent and in the eastern, weakest region only 67 per cent.

Let us examine the same comparisons for 1965. The average for this country again being accepted as representing the figure of 100 per cent, the figure for the most powerful mid-western region will be 114 per cent and for the weakest one, the north-eastern 79 per cent³⁸.

We apply similar methods in our examination of the degree of industrialization, using the index of the number of industrial workers in each 1,000 of population.

In 1938 the average for this country was 23 workers for each 1,000 of population and we accept this figure as 100 per cent. In the western region the index was 187 per cent and in the weakest eastern region as little as 22 per cent³⁹. In 1967 the average for this country, which we accept here as 100 per cent, was 120 workers in each 1,000 of population. In the southern region (the most industrialized one) the index was 150 per cent and in the weakest north-eastern region only 43 per cent⁴⁰.

The levelling of the economic development estimated by means of two indices finds its expression in industry in the diminishing of the difference from 165 to 107 points and in agriculture from 59 to 35 points.

In order to present even more exactly the difference in the economic

³⁸ The authors' own calculations made on the basis of the *Rocznik Statystyczny* 1968, pp. 82 and 83 and *Mały Rocznik Statystyczny* 1939, p. 74. Gross incomes were accepted as a starting point.

³⁹ The authors' own calculations made on the basis of: *Mały Rocznik Statystyczny* 1939, pp. 10 and 261.

⁴⁰ The authors' own estimates made on the basis of: *Rocznik Statystyczny* 1968, pp. 80 and 81.

level of the particular regions of this country in 1967, we shall apply another gauge, i.e. the index of total production of industry and agriculture per capita.

If we accept the average for this country as representing 100 per cent we shall note a difference between the developed southern region (124 per cent) and the backward north-eastern region (72 per cent). This represents the 52 points illustrating the inequality of the economic development and level of Poland's regions. It must be pointed out that during the last 25 years the plans aiming at levelling those disproportions between regions brought about a considerable improvement and influenced the activization of the regions belated in their economic development.

Table 10

The Value of Total Product in Regional Cross-section Per Capita in 1967
(in thousands of zlotys)

Contents	The Value of the Products of Socialized Industries	The Value of Agricultural Products	Total
Poland	26.7	8.8	35.5
Central Region	24.1	8.3	32.4
Northern Region	22.6	9.6	32.2
Mid-western Region	24.6	11.9	36.5
South-western Region	34.2	7.8	42.0
Southern Region	40.2	3.9	44.1
South-eastern Region	17.2	11.3	28.5
North-eastern Region	11.2	14.4	25.6

The source: The authors' own estimates on the basis of *Rocznik Statystyczny* 1968, pp. 80 - 83.

The direction of investment aiming at the activization of the belated regions is for the state an expensive programme. Opinions on the subjects under discussion expressed by Stanisław Leszczycki are extremely interesting, "... from 1,000 zł invested in capital goods of material production in 1965 a production of the value of 400 zł was attained in Poland as whole. But in the Koszalin voivodeship only 255, in the Olsztyn voivodeship only 214. On the other hand in the "central block", in the region of great agglomerations, the average level was left behind. In Upper Silesia — 407, in Cracow voivodeship — 458, in Lodz voivodeship 583 (...) and in Warsaw 720. Thus each one złoty invested in capital investments is in the above mentioned "block" exploited in a much more productive way"⁴¹.

⁴¹ S. Leszczycki: *Nad nową mapą Polski (Over the New Map of Poland)*. In: *Życie Warszawy* 1969, No. 142, p. 4. Cf.: also A. Jezierski, S. M. Zawadzki: *Dwa wieki...*

It is understandable that owing to the lack of infrastructure, both of economic and of social character, the costs of investment in backward regions are higher than in the developed ones.

The economic policies of the state, in spite of that, has always aimed at the activization of the backward regions of this country in order to level the disproportions both in the sphere of economy and social evolution. Industrial investment aims at levelling the living standards and at the social and cultural evolution of the population of this country as a whole.

The distinguished Polish economist, Oskar Lange described the quintessence of the economy of an economically backward country by pointing out that it is a kind of country in which "... the existing capital goods are not sufficient for the employment of the whole manpower being at their disposal"⁴².

The growth of employment in Poland is best illustrated by the presentation of the average number of insured persons per annum in the Social Security Administration (Zakład Ubezpieczeń Społecznych). The estimates include pupils⁴³.

1938 - 2.9 million	1960 - 7.5 million
1946 - 2.5 ,,	1965 - 9.1 ,,
1950 - 5.2 ,,	1968 - 10.0 ,,
1955 - 6.8 ,,	

The number of insured persons increased fourfold within the years 1946 - 1968. In order to understand the great significance of that achievement one must bear in mind how tragically significant role was played in the social life of this country by the agrarian over-population and the structural unemployment in industry.

"With the passage of time the consequences of the over-population of the countryside were becoming more and more acute, particularly in the thirties. It was at that time that attempts were made to estimate the number of redundant population in the rural areas. It seems that the results obtained by the Institute of Social Economy (Instytut Gospodarstwa Społecznego) were the nearest to the real situation. The Institute, by means of a special questionnaire established the estimated number of persons who could have left the villages at once in 1935, without any change in the agrarian structure and in the level of technology, to amount to 2.4 million. This number was far greater if we include those whose labour was only partly used in the farms (the so called partly redundant ones). After proper calculations

⁴² O. Lange: *Niektóre problemy planowania gospodarczego w krajach nierozwiniętych (Some Problems of Economic Planning in Undeveloped Countries)*. In: *Pisma ekonomiczne i społeczne 1930 - 1960*. Warszawa 1961, p. 207.

⁴³ *Rocznik Statystyczny 1968*, pp. 36 - 37.

we shall find that the over-population in Poland in 1935 amounted nearly to 4.5 million persons (also in those times, by means of a different method of calculation it was estimated that there were 8 million redundant persons in the countryside). As many persons could have left the villages, if the working hours of the rest were fully exploited''⁴⁴.

In 1931 there was 1 person professionally active in agriculture for each 1.76 hectare of crop land. The ratio in 1960 was 1 person for each 2.35 hectare. If we accept this index as the basis of estimating the number of redundant population in 1931 we shall arrive at the figure of 2.5 million persons. On the other hand, if we accept the index of persons maintaining themselves from agriculture for each 100 hectares of crop land (70 persons), we shall arrive at the figure of 12.3 million and if we subtract this figure from the number of persons really maintaining themselves from agriculture in 1931 (19.1 million) we shall arrive at the figure of c. 7 million persons ⁴⁵.

From 1950 to 1967 the number of persons maintaining themselves from non-agricultural occupations increased by c. 9.5 million. On the other hand, as we have pointed out above, the number of persons maintaining themselves from agriculture fell by c. 1 million. Thus with the present level of agricultural technology and structure the agrarian over-population ceased to exist.

Agrarian over-population became particularly acute in the thirties, owing to the stoppage of emigration. In the years 1926 - 1930 an average number of 192.7 thousand persons emigrated for ever from this country⁴⁶, the annual average for the years 1960 - 1968 was 26.9 thousand persons⁴⁷. Thus after the war the emigration economically detrimental to the State was nearly completely broken down.

Structural unemployment in industry was the other calamity of Polish economy.

There is no blank space for free situations in table 11 in the thirties, because there were no free situations. From the above presented data it may be undoubtedly concluded that unemployment, problem No. 2, was abolished. A deficit of manpower began to make itself felt since 1967. This is not only so in territorial or vocational cross-sections, but in the general balance as well. This problem is particularly acute in great industrial centres. Generally speaking, manpower deficit is a factor that may cause new solutions to be applied in the economy of this country.

⁴⁴ I. Kostrowicka, Z. Landau, J. Tomaszewski: *Historia gospodarcza Polski XIX i XX wieku*, p. 257.

⁴⁵ The authors' own calculations. In 1931 109 persons of agrarian population fell upon 100 hectares of crop land.

⁴⁶ *Mały Rocznik Statystyczny* 1939, p. 54.

⁴⁷ The basis is *Rocznik Statystyczny* 1968, p. 63.

Table 11

Situation in the Labour Market in the Years 1931 - 1938 and in the Years 1961 - 1968

Year	The Unemployed		Year Dec. 31st Status	Those in Search of Employment	Free Working Posts
	Registered Ones	The ISE (IGS) Estimate			
1931	313	655	1961	41	55
1935	403	830	1965	62	53
1938	456	.	1968	53	77

The source: *Mały Rocznik Statystyczny* 1939, p. 267; and *Wielka Encyklopedia Powszechna (The Great Common Encyclopaedia)* vol. I, p. 744. The ISE (IGS) estimate comprises both manual workers and the clerical employees. There were unemployed workers:

1931 - 524 thousand, 1932 - 755 thousand, 1933 - 781 thousand, 1934 - 743 thousand, 1935 - 683 thousand, 1936 - 619 thousand. *Rocznik Statystyczny* 1968, p. 72 and *Mały Rocznik Statystyczny* 1969, p. 46.

The first stage of industrialization, which this country has already arrived at, was characterized by a dramatic growth of employment and of new industrial investments, mainly in the sphere of raw materials and semi-manufactured goods. It seems that within the 25 years of industrialization that "extensive" stage is completed. Today our economy enters a new stage of investment activity aiming at increasing productivity, at the development of the processing industries and at a better utilization of production capacities and the scientific-technological resources.

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