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MICHAL KISIEL

Links of Polish Agriculture with the World Economy

The aim of this paper is to present the evolution, range and directions of links of Polish agriculture with foreign countries and their significance for the development of this sector and of the national economy as a whole. The problems in the paper were limited to ties connecting agriculture with the world economy:

in the sphere of material outlays for development of agricultural production (imports of production means of agricultural and industrial origin for the needs of agriculture),

in the sphere of exchange of non-material goods which make up the concept of scientific and technical co-operation with foreign countries,

and in the sphere of agricultural produce distribution (exports of agricultural products and their derivatives). Considering the fact that the development of Polish agriculture has been implemented on the basis of national resources and reserves, without the share of foreign capital, problems of capital links of agriculture with foreign countries were left out in the paper.

I

Poland is a country in which the use of import links with the world economy for developing the rate of growth of agricultural production and for social and technical reconstruction of individual agriculture, dominating in our country, is of a growing range. However, so far, this process has not brought a higher dependence of that economic sector upon foreign countries, which has the effect of several conditions.

Firstly, it is noteworthy that the implementation of a long-range industrialization programme, aiming at acceleration of the rate of economic growth and at reshaping the general social and economic structure of the country, required a concentration of financial and material means for the purposes of developing high-priority sectors of economy. It meant necessary reduction, particularly at the time of intensive industrialization, of accumulation possibilities of agriculture as the initially leading economic

sector. It also meant that the stream of working and fixed production means, directed to agriculture, was out of proportion small in relation to the contribution of agriculture to the creation of social product and gross national product. Although in the postwar period the investment outlays for agriculture kept increasing systematically,¹ it was only in the seventies, when the share of agriculture in creating GNP dropped from about 30 per cent in 1960 to about 11 per cent in 1975, that relations of the compared shares have reversed.

Secondly, for most of the postwar period, the inadequacy of the material structure of national product for the required structure of its final division, typical for developing countries, accounted for the fact that any investment activity was associated with a considerable growth of demand for imports. In view of high income and production elasticity of the demand for imports of production means, the granting of priority to industrial development was tantamount to admittance of industrial priority in supply of imported goods.

Thirdly, in the postwar period, the export volume kept increasing systematically, the foreign currency inflow, however, was incomparably low in relation to rapidly growing import needs. That circumstance strongly affected the inter-sector proportions of division of imported goods. In general, the priority of industry was more conspicuous in foreign trade than in the intersector and inter-branch structure of investment outlays.

Fourthly, with increasing production capacity of heavy industry, it was possible to raise outlays for production lines manufacturing production means for sectors and branches turning out consumption goods, agriculture and food industry included. In a relatively short time there were created – practically from the beginning, the industries of fertilizer, fodder, building materials, in co-operation with other countries there were developed some branches of machine industry, and that of agricultural transportation means, there were expanded and modernized branches of food industry, etc.

The above mentioned circumstances, only a few of them, determined both the degree of dependence of Polish agriculture upon foreign supplies, and the model of import links of this sector of material production with foreign countries. The fact that the supply of agriculture with fixed and working production means depended mainly on deliveries of domestic industry, the branches of which work partly or fully on imported raw materials, accounts for the significance acquired primarily by all connections of intermediary character. With the introduced up-to-date technologies and advancing mechanization processes there is growing, in particular, the indirect dependence of agriculture upon foreign supplies of raw materials for the liquid fuel industry, raw materials for fertilizer production,² as well as upon imports of licences for agriculture as such and for servicing branches.

The range of changes occurring in the field of direct import links of agriculture with foreign countries is synthetically characterized by the

data concerning the share of agriculture in total Polish imports. In the years 1957–72, after the intensive industrialization was completed, the share of agriculture in the final division of imported goods was stable and did not exceed 3 per cent. In the division of imported production means for the whole sphere of material production, on the other hand, the share of agriculture was somewhat higher, within the limits of 4 per cent. Simultaneously, the share of these imports reported for that period in the total material costs of the agricultural sector ranged from 1.7 to 2.7 per cent, and in the value of material outlays from outside agriculture the share was on the level of 7 per cent.³ Let us add that the latter category of outlays was the most dynamically growing item in total outlays for agriculture, which increased from about 24 per cent in 1957 to about 38 per cent in 1975.

The awareness of limitations occurring in the field of production and imports of investment goods, of the demographic pressure,⁴ and of the demand pressure on the food market, accounted for the fact that the strategy of agricultural development assumed in the fifties did not allow radical changes of agrarian structure (with the share of peasant farming reaching 80 per cent). The strategy was oriented more on production maximization per unit of arable land than on increase of labour productivity. Therefore, in the agrarian policy particular attention was attached to increasing the stream of production means to allow a more intensive use of production factors functioning in agriculture, i.e. manpower and land. The mentioned preferences were fully reflected in the material structure of imports implemented for the needs of agriculture. With the share of industrial production means reaching 90 to 93 per cent, in the import structure came to the fore the supplies of working assets directly influencing the increase of crops, such as fertilizers and pesticides. In the sixties, when the domestic fertilizer industry was being created, those products made up to 16 per cent of the value of total chemical imports, and over 70 per cent of the value of production means imported for agriculture.

Till the end of the sixties imports of production means of agricultural derivation did not play a major role in shaping the level of outlays for agricultural production, and they were not of great significance in agricultural-food imports either (share was of the order of 24 per cent). The volume of those imports was determined by cereal imports, implemented mainly for the needs of exports of products of animal derivation.

The ever growing scale of tasks in feeding the population, with fast increasing and changing production needs of agriculture, accounted for the fact that in the new development strategy, adopted in early seventies, the import links of agriculture with foreign countries gained more significance. It concerned indirect and direct links in the same degree. Now already, the wider opening of the economy and agriculture to world markets showing, among others, in the considerable expansion of imports of production means of agricultural derivation (traditional cereal-fodder imports included), is reflected in the level of outlays for agricultural

production and in acceleration of dynamics of production growth.

Thus, in the years 1971–75 the mean annual rate of growth of agricultural production amounted to about 3.7 per cent, whereas in the years 1966–70 it was on the level of 1.8 per cent. Continuation of this strategy in the next coming ten to twelve years depends, however, on the advance in developing export links and in possibilities of compensating the balance of trade.

II

The dependence of the process of structural changes of the national economy on the inflow of investment goods from outside caused the expansion of export connections to become a matter of high priority in the postwar development of Poland. Considering that agriculture had, and still has, a significant share in the material structure of social product and of GNP, great expectations for increase of foreign currency incomes were linked with the development of exports of raw processed agricultural products.⁵

Though in the postwar 25 years, from 1950 to 1975, the rate of growth of agricultural production achieved in Poland was fairly high, of the order of 3 per cent, which allowed a gradual expansion of agricultural-food exports, the latter never reached the extent adequate to the production potential of Polish agriculture. The available evaluations of the degree of involvement of agriculture in export production show that in the early seventies, i.e. at the time of the fastest growth of agricultural production, agricultural exports, together with those of other branches, constituted less than 10 per cent, with direct agricultural exports about 2 per cent of the total production of this sector.⁶

Focusing attention for the time being only on domestic factors, the dynamic increase of national food consumption should be considered as the main reason for the weak export links of agriculture. Under the circumstances of maintained high income elasticity of demand for food⁷ and high dynamics of incomes, the principle of priority in supplying the domestic food market was adopted in Poland. It meant a weakening of dynamics of agricultural exports and of foreign currency incomes but, at the most difficult periods, it effectively counteracted the menace of lowering the rate of growth of real wages. Moreover, also important for shaping of these exports' volume were the fluctuations in the level of agricultural production, difficulties in adjusting the rate of growth of plant production to the desired rate of growth of animal production, and a relatively slow rate of modernization and expansion of production capacities in the food industry.

Polish postwar exports of agricultural food products are a continuation of ties of agriculture with foreign countries established in previous periods. Though their share in the total exports of the country gradually declines, with the growing volume, it has been for years a vital item of

total foreign currency income.

During the two decades from 1950 to 1969, with the decreasing share of agriculture in the product designated for satisfying the final demand, agricultural-food exports provided 16 to 17 per cent of total foreign currency incomes, and only in the seventies did this drop to about 10 per cent (in 1977).

As it appears from the comparison of foreign currency incomes from exports of agricultural-food commodities with expenses for their imports, till the mid-seventies agriculture, as one of several sectors and branches of the national economy, was a surplus sector, which participated, in a large measure, in financing imports of investment goods and raw materials needed for the country's development. In this respect, an essential role was played, in particular, by surpluses in trade of those commodities obtained in exports directed to West European and North American markets. Though the markets of those countries absorbed less than 30 to 35 per cent of the total agricultural-food exports from Poland, still their share in total exports to those countries exceeded, as a rule, 50 per cent. This meant, of course, the possibility of a greater influx to the country of investment goods of the highest technical and economic parameters, and of the latest technical achievements. We can say that the agriculture and food industry, though relatively slightly involved in export production, by supplying the country with foreign currencies performed essential functions in the process of modernization of the national economy, and, at the same time, contributed in this way to creating bases for its own social and technical reconstruction.

III

For many years Polish agrarian policy has attached great importance to the development of scientific and technical co-operation with the world. The significance of this co-operation is growing constantly with the development of agriculture, and the achieved effects can be compared with results obtained through the exchange of material goods. Staff and financial aspects, which do not allow to develop all lines of research necessary for agricultural advance, also speak in favour of this co-operation. Many technical, production, economic and organizational problems have been scientifically elaborated and tested in other countries. A part of these solutions is being gradually adjusted to Polish conditions and introduced in practice. On the other hand, Poland shares its experience in many fields, such as veterinary medicine, seed production, sugar industry, with other countries.

The range and directions of the undertaken scientific and technical co-operation are indirectly characterized by the fact that, apart from bilateral contacts, Poland is a member of over 20 international agricultural organizations, besides COMECON and UN specialized agencies (FAO, ECE, IMO, etc.).

While fully appreciating the significance of other organizations, it should be emphasized that especially convenient conditions for international scientific and technical co-operation were created within COMECON. Besides exchanging the results of research, carried on separately in single countries, common scientific works are taken up, among others, in growing new varieties of cultivated plants, in animal rearing, in fighting pests, weeds and insects, in organization and mechanization of production processes, in economics and organization of agriculture, and many other fields. Moreover, the co-operation covers mutual consultations, scientific training, and production practice.

IV

As it appears from Polish experience, the expansion of multilateral links of agriculture with the world economy provides for a country, which starts accelerated development, a prerequisite determining the rate of changes of the entire economy and of agriculture as such.

Theoretically speaking, the development of those links must not be limited to operations aiming merely at the adjustment, through trade, of the material structure of accumulated domestic means to the needs of the investment programme. In the case of the necessary maintenance of high employment in agriculture per unit area, as it was in Poland, it may be advisable to start with imports of production means which stimulate land yield, including means serving the valorization of manpower reserves for export production purposes. In practice, however, freedom of action in both cases is limited, and often rendered impossible, by outside conditions.

It should be stated that the postwar economic development of Poland proceeded in exceptional and unique circumstances. The basic part of Polish trade, effected within COMECON, was excluded from the influence of economic fluctuations. At the same time, up to the early seventies, it was a period of favourable trends of business on the world agricultural market. Relatively wide sale possibilities for products of animal derivation were available. The relation of world prices for products of animal derivation developed, in general, favourably to the prices for cereals and fodder. There also dominated periods of relative stabilization of economic conditions of purchase of production means and of sale of final products.

Phenomena occurring in the present decade, such as the advancing growth of the degree of self-sufficiency of traditional food importers, combined with deterioration of economic conditions of raw material purchasing for food production, periodical shortages of raw materials for purchase, etc., bring about the fact that, in view of low elasticity of agricultural production, the adjustment to unexpectedly changing outside conditions becomes most complex, even for countries of average development level. This is confirmed, among others, by difficulties

encountered recently by Poland, in spite of attempts of adjustment, in locating agricultural-food exports, for financing purchases of cereals and fodder, and for compensating the trade balance in these commodities. In this respect, Poland is not an isolated case. Therefore, the above mentioned circumstances speak in favour of the thesis that efforts aiming at settling the situation on world markets should be accompanied by steps towards expansion of less conflicting mutual links, among others, scientific and technical co-operation, which bring results similar to those of business connections. The aptness of this thesis is confirmed, among others, by the experience of co-operation within the group of COM-ECON countries.

NOTES

¹ In 1961–75 this mean annual rate ranged from 8 to 14 per cent.

² In covering the demand for raw materials of those industrial branches, the supplies from the USSR are, in particular, of essential significance. They cover almost in full the demand for crude oil and natural gas, the basic raw material for production of nitrogen fertilizers, and a part of demand for potassium chloride. The demand for phosphorites, on the other hand, is covered mainly by North African countries.

³ A. Woś "Links of agriculture with national economy", PWRiL Warsaw 1975, p. 132.

⁴ The rate of population increase in the fifties and sixties amounted to about 1.8 per cent, and decreased to 1 per cent only in the seventies. In the years 1950–78 the number of population increased from 25 to 35.0 million persons.

⁵ Taking into account the fact that an ever bigger part of total agricultural product is industrially processed (44 per cent in 1975), 90 per cent of which is in the food industry, where the value of agricultural raw materials exceeds 50 per cent of material costs and 40 per cent of the total production value of this sector; the analysis of links has been limited to the agriculture and food industry.

⁶ Compare A. Woś, *op. cit.*, p. 143.

⁷ The shaping of the level of income elasticity of food demand was essentially influenced by the low food consumption level at the starting point, a high population birth rate (of the order of 1.8 per cent), persistent differences in the consumption level of non-agricultural population, as well as the relatively slow supply increase of domestic market with wanted consumption articles of industrial derivation.

⁸ For the sake of comparison, in 1957 this share amounted to about 41 per cent, while in 1975 it decreased to 25 per cent.

DISCUSSION OPENING – J. KLATZMAN

First of all I must point out that it was only yesterday that I was asked to introduce the discussion on this paper. I have certainly had time to read it thoroughly, but not to let my thoughts develop.

My aim is to raise some questions likely to provoke discussion, but I should like to begin with two remarks.

First, I appreciate the fact that M. Kisiel did not confine his analysis to exchanges of goods, but also included trade in non-material goods, namely scientific and technical co-operation. This is a factor of basic importance in international trade, but one which one sometimes tends to forget.

My second remark concerns a point which was not included in the presentation, but which is included in the text. M. Kisiel recalls the need to give priority to industrialization, at the expense of agriculture, in the early stages of economic development. I do not dispute the principle of giving priority to industrial development. But I think that if agriculture is too much neglected this may slow down industrial progress.

On the main theme, one cannot but be struck by the complexity of interrelationships which planners have to take into account. To give but one example, one can say that the importance of raw materials for fertilizer manufacture is aimed at increasing agricultural production, so as to increase exports of food products, which procure the means to purchase industrial goods abroad. Thus one imports raw materials to manufacture fertilizer to increase imports of industrial machinery.

One wonders to what extent a planned economy can build a mathematical model of such interrelationships for rational decision-making.

But there are cases where the decision is purely political. When, for example, it is decided to increase domestic food supply at the expense of exports, no economic model can provide the means to decide how far in this direction it is desirable to go.

It also emerges from M. Kisiel's paper that, in spite of close trade links within COMECON, trade with the rest of the world is continually expanding. The Polish economy is increasingly closely linked with the world economy. She thus runs the risk of suffering the consequences of the current economic crisis and the growing instability the experts are predicting. Agriculture is involved in these interdependencies. But I think it is impossible to study in isolation the possible effects on Polish agriculture of its international trade links. The problem has to be analysed within the framework of a global study in a (quantitative or qualitative) model in which agriculture and even the agro-industrial complex appear as part of the national economy.