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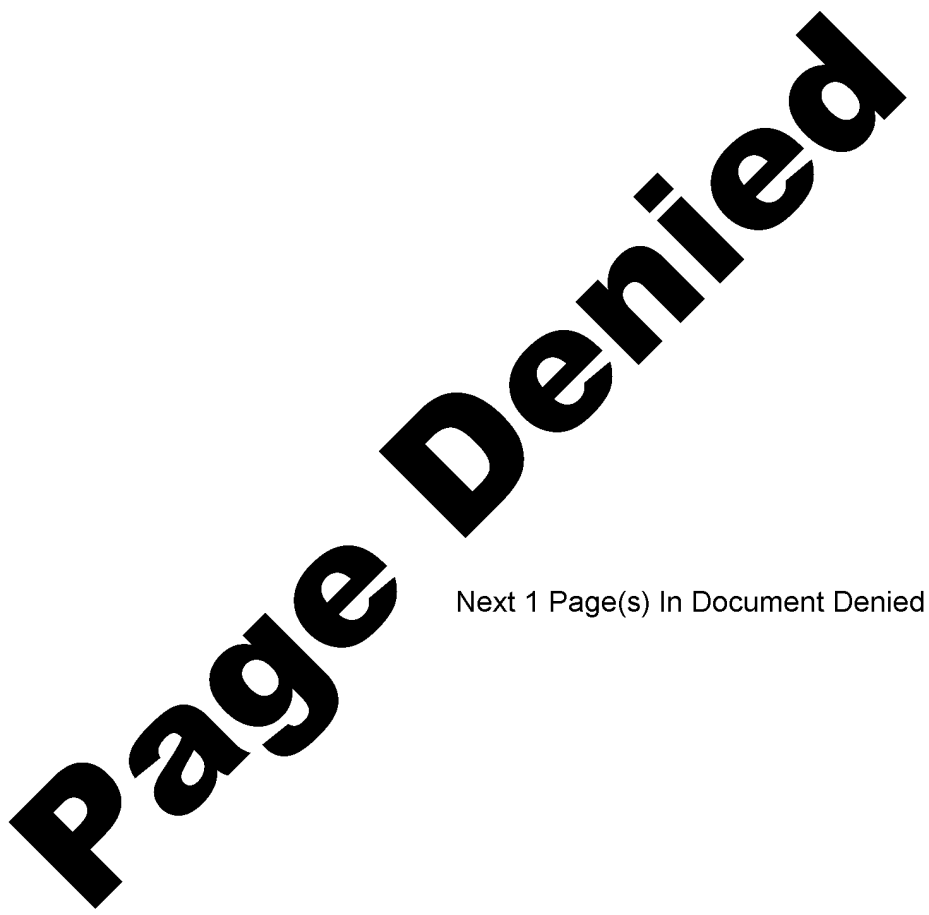

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FIRST OUTLINES OF A THEORY OF FOREIGN TRADE IN A COUNTRY WITH A PLANNED ECONOMY

(Case of trade exchanges in Poland)

I. How theory on foreign trade in countries with planned economies stand.

A complex and homogene theory of foreign trade in the socialist countries (with planned economies) is almost inexistance in the theoretical works of the East. This blank in the economic theory of socialism is not accidental; it is the result of manifold reasons.

1. Theoretical reasons - Karl Marx in writing Das Kapital made two omissions which are heavy with meaning: he conscientiously avoided including in his theory of value the modifications which could be brought to it by foreign trade and in his theory of reproduction the modifications which could be brought to it by technical progress[1].

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[1] Moreover, it is striking that Marx, for whom the economic theory of David Ricardo was a source of inspiration (theory of value) at the same time being an object for criticism (theory of salary and theory of land rent), never took any position with regard to the theory of foreign trade (and especially the theory of comparative costs) formulated by Ricardo. It is not considered that the remarks made by Marx about the dropping of the rates of profit after supplying cheaper raw materials move in this direction. See Karl Marx, Theorien uber den Mehrwert, and also Le Capital, Vol. III, ch. 6/1, or his remarks

on the foreign exchange rate in England. See Le Capital, Vol. III, ch. 35; for the history of market capital, Le Capital, Vol. III, ch. 20.

However it was a question, as experience of the past century since the first edition of Das Kapital has shown, of the most dynamic factors. Moreover Marx certainly understood the possibilities but he was treating technical progress retrospectively when he analyzed the substitution of machines for manual labor; he was also treating foreign trade when he considered the relationship of forces between the main industrial countries of Europe in the 19th century without resorting to an analysis of the mechanism of exchanges between them. Marx's theory, such as the Soviet revolutionaries inherited it in 1917, included neither technical progress nor foreign trade. Nevertheless to the extent that the newly created country was obliged to forge its own economic policy these two factors must have been grasped and developed. Without analyzing it in depth, Lenin had to reintergrate the technical progress factor into practice if not into economic theory; he emphasized its importance within the broad outline of plans for electrafication, industrialization of the country and increase of the productivity of labor[1].

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1 If Thomas does not consider here that his work was exclusively on the monetary aspect of exchanges with abroad - e.g. his article on gold - , this attention pertaining to the monetary aspect of exchanges constitutes a direct extrapolation of Marx's thought which, being concerned with the intrinsic interplay of economic facts in the domain of foreign trade, remained on the surface of things, retaining only their

monetary aspects of them. (See Lenin's remarks on the role of banking in "Imperialism, the Crowning Stage of Capitalism"; and on the role of gold in trade in "The Importance of Gold now and after the Victory of Socialism".)

The foreing trade factor was in its turn examined by Trotsky, particularly when he put forth the broad outlines of his plans for trade exchanges for the rest of the world. One need not refrain from thinking that this perhaps determined the ultimate stagnation of theoretical thought regarding foreign trade. Stalin in effect remained direct heir to Lenin's thought and was the grave digger for everything which had the slightest connection with Trotsky; under his initiative Soviet theoriciens and praticiens lent their efforts toward the study of domestic production and the problems related to it.

This thought trend has been followed up in all the countries with a planned economy and in the years 1945-1955 one can advance that there were few, if any at all, original economic ideas on foreign trade coming out of the framework of economic theory elaborated in the USSR.

2. Political Reasons

The ensemble of international economic relations was in itself highly favorable for the creation of a valuable economic theory for foreign trade in the countries with a planned economy. Before the Second World War, USSR exchanges with the rest of the world were always invested with a clearly political character. The theoriciens and even praticiens of foreign trade were not able to think of the existance of exchanges with the outside on a strictly economic basis (said otherwise, on the basis of pure rentibility and comparative advantage) and other conclusions they drew about the relations of foreign

countries with the USSR tried to prove that these relations were founded on intervention (said the industrial power of the USSR), discrimination (economic blockade) and attempts to release the economic crisis which raged in the West (exports of surplus unsaleable on the domestic markets).

It is obvious that political conclusions of this nature did not allow forming theoretical thought open to generalizing the phenomenon of foreign trade, seeing with Marx's eyes, applicable to the planned economy and taking place among countries having different economic systems. The other European countries of the East suffered the same limitations of thought, all the more since their economic relations with the world were completely distorted by policy. On the one hand, relations dominated by the USSR, and on the other hand relations dominated by the cold war during and after the Korean conflict.

3. Economic Reasons

Also a certain number of economic reasons oppose the working out of a theory for foreign trade in countries with a planned economy. It seemed at first sight that the combination of the theory of value based on labor and the principle of industrialization were only possible within the framework of a closed economy. However, the theory of labor-value logically and implicitly poses the necessity and the rationality of international division of labor which itself leads to the justification of the theory of comparative costs.

This was not compatible with trends of national self-sufficiency toward which the economic policy of the USSR was leaning before and after the Second World War; the economic policies of countries with planned economy went the same way, gravitating toward the Soviet orbit in the years 1947-1955. On the other hand, a voluntary approach toward the law of value has in addition induced the departure of the price of products from their real value. The initial departure has already provoked a violation of the Marxist interpretation of this law which says that value is the equivalent of the quantity

of labor necessary socially for a certain social average of quantity. Now, the social average, to be scientifically justified, cannot be limited to a geographic region or to a collection of technical factors of production. In this century, animated by a geographic region appearing and disappearing shores represents non-conjectural data, statistically unwarranted. A collection of technical factors of production can be distinguished clearly by its effectiveness with another collection, being close but separated by the border, the customs people and a political regime.

Nevertheless taken as a basis of prices, value has been limited by geographic borders and by the state of technical factors, the two being far from the plurinational or world-wide average. This has constituted the first stage of departure from value; the second was the fixation of prices in terms of the current needs of economic policy -- most often to adapt them to the incompatibilities caused by this policy. The result was that the structure of prices in countries with a planned economy had no relation to that of the countries in the west. This state of things rendered impossible the elaboration of a theory of foreign trade inasmuch as the problem of prices and value had not been solved. The problem remaining untouched and untouchable for many years, a theory of foreign trade could not be formed in the void. Furthermore the principle of industrialization has transformed foreign trade into a safety valve associated with the economic system and designed uniquely to equilibrate the material balances of production. Priority imports

entered the balances to fulfill production needs (especially by virtue of furnishing investment assets and raw materials which could be produced at a given moment on the interior of the country; the exports were provided for namely to pay for the imports. Thus these economic reasons themselves prevented the working out of a theory for foreign trade in the country with a planned economy.

It is fitting to add to this list the difficulties due to the lack of statistic material. It is a curious thing that statistical data relative to foreign trade, in spite of its international character, was kept secret and often economists of these countries were forced to have recourse to the documentation of the United Nations or of the economic commission for Europe for data concerning their own country due to the lack of national documentation.

II And of the period of non-inclusion of foreign trade and economic theory

Such a period with the necessity for theory of foreign trade was constantly neglected could not last. The evolution of general conditions sweeping away this state of affairs was first produced in the political domain. Stalin's death put an end to the extrapolation made by economic theory of a single plan with all of the Marxist heritage -- that of production. The events of 1956 put an end on their own part to economic relations of domination between the USSR and the other country with a planned economy and furthermore opened the way to more extensive economic relations between these countries and the so-called capitalist countries.

The economic sub-strata themselves have changed also. The accelerated industrialization process being virtually completed in most of the countries with the planned economy, it was important to find a new place for foreign trade in the future. To be sure, foreign trade could not constitute an independent factor which would be contrary to the principle of an integral planning and a higher goal for the socialist economy (considered insofar as the fundamental economic law for social formation). Theory and economic practice have only oriented their position in another direction, abandoning the extensive effort (maximization of goals) for the benefit of the intensive effort (minimization of means). The problem of effectiveness was posed from that time onward. But the efficiency of production (and the effectiveness of investments considered as means) could not dispense with foreign trade, seen this time not as a supplementary tool designed for the completion of the goal to be attained, but as one of the means whose effectiveness could have been compared with the effectiveness of other.

However just as the Renaissance of the theory of foreign trade in a planned economy was made possible, the surrounding conditions had changed fundamentally in comparison with the level of departure of these countries. The creation of complex industries has instigated a reversal in the structure of the material balances of the country: surplus balances of raw materials during the beginnings of industrialization have given place to deficits balances; in like fashion, the deficit balances of capital investment gave place to surplus balances.

This has not been without influencing the structure of foreign trade.

At the same time the world market broke up into a certain number of very clearly defined groups of countries. Furthermore, the homogeneity of each group has been strengthened by different facts, that of the large industrialized capitalist countries by the creation of customs and political unions, that of the group of underdeveloped countries by the choice of industrialization for some, "natural or genetic" development for others, neutrality for some and a leaning toward a specific political and economic group for others.

Thus the problem is raised for the countries with a planned economy and it is important to create a theory of foreign trade.

Has this theory been created? One can find no trace of it in any theoretical economic publication. So it is theoretically inexistent; the practice of foreign trade is nonetheless guided by certain more and more coherent theoretical principles. One is then tempted to reconstruct a theory for foreign trade basing it on practice, by means of influence (in order to end up with particular propositions) and by means of induction (with a view to ending up with general propositions).

The example chosen will be Polish foreign trade. The Polish case, that of its foreign trade being found halfway between that of the highly industrialized countries of Czechoslovakia and East Germany (whose exchanges, by structure, belong to those of the industrialized countries in the west) and that of the highly industrialized countries such as Bulgaria and Rumania (with exchanges of the same kind as those

in the underdeveloped countries). The fact that an economy built on coal and the fact that first Poland strongly felt the effects of Russian domination, with Polish foreign trade coming subsequently under the influence of transformations during the industrialization of the country -- this being the basis of the Polish foreign trade -- must illustrate the case and allow drawing a lesson from it for the countries which are also trying to formulate a theory of foreign trade.

III. Foreign trade and national production

If an equation were established where foreign trade (in value and/or in structure) figured as a dependent variable, the role of the determinant of this equation certainly would have been played by the domestic production of the country and the supply and demand on the interior and outside the country would have constituted the limiting conditions in it. (The problem will be treated in the chapter on "optimation" of foreign trade.) It remains that foreign trade exerts from its beginning (in the countries endowed with a weak degree of economic institutionalism or state economic control ["dirigisme"]) or after a certain time (in the countries practicing state interventionism or a planned economy) a "feedback" effect (return impact) influencing production in turn but the connection between these two factors, whether it be a simple linear equation (unilateral) or a cybernetic linear equation (reciprocal), is beyond doubt.

However the nature of this connection is not clear. For many decades, traditional economic analysis linked the end products subject to foreign exchanges to final production (or industrial consumption), which furnished or absorbed these products. All influence exerted by the final producers (= exporters, both placed at the end of the chain of production) or by the initial consumers (= importers, both placed at the beginning of the industrial consumption chain) on the other producers and consumers would return to the framework of play between the multiplier and the accelerator (secondary, tertiary effects...), a simple and convenient denomination.

1. The relations brought to light by import-export matrixes.

Such an analysis was far from being exact. The introduction of matrixes in numerical economic studies marked the beginning of a more precise analysis. Wassily Leontief was the first to use matrixes for the study of foreign trade and the results of his analysis, read before the American Philosophical Society in Philadelphia on 24 April 1953, have given place to the formation of a "paradox" consisting of the participation of the United States in the international division of labor based on a specialization in labor-intensive and non-capital-intensive production, which implies an economy of capital and the export of surplus manpower.

To study the case of foreign trade-production connections in Poland, recourse to the intersectorial flows of input-output is necessary.[1]

the value of imports used in the process of production M_i and the indirect taxes charged, T_i.

Let us call q_i, m_i, and t_i the corresponding quantities by unit of production; from this

$$q_i = \frac{Q_i}{O_i} \; ; \; m_i = \frac{M_i}{O_i} \; ; \; t_i = \frac{T_i}{O_i}$$

By inverting the matrix of origin A of input-output coefficients, we get the matrix $(I-A)^{-1}$ whose element p_{ij} corresponds to the total production of the sector i required by full production of the sector j. The accrued costs corresponding to this unit of production are then given by:

$\bar{q}_{ij} = q_i p_{ij}$ for the value added by sector i;

$\bar{m}_j = \sum_i m_i p_{ij}$ for the value of imports required

$\bar{t}_j = \sum_i t_i p_{ij}$ for the total of indirect taxes

Let us call Y_{jh} the goods/services produced by sector j and contained in the component Y_h of the final demand Y. The structure of accrued costs of the component Y_h is given by

$\bar{Q}_{ih} = \sum_j \bar{q}_{ij} Y_{jh}$ for the value added by sector i;

$\bar{m}_h = \sum_j \bar{m}_j Y_{jh}$ for the value of the o's

$\bar{T}_h = \sum_j \bar{t}_j Y_{jh}$ for the total of indirect taxes

[1] Beginning of footnote which runs from here to the top of p. 18.

In algebraic terms, the method applied can be formulated in the following manner : the input-output table gives for each sector i, the value of the total production in market prices, Q_i, the added value corresponding to the cost of the factors, Q_i,

[See table on p. 11]

The inversion of various matrixes A was carried out by a method of successive approximation founded on the identity

$$(I-A)^{-1} \approx (A)\,(I-A)^{-1} + I,$$

applied to a rough approximation of the inverted matrix $(I-A)^{-1}$ estimated directly. [End of footnote]

The tax on the turnover has deliberately been deducted in order to come closer to the cost of production. The turnover tax weighs on the cost of production expecially in light industry (textiles, clothes, shoes) which furnish a good part of the national accumulation of aggregate savings.

The participation of imports in the outputs of different branches shows a very acute dependence of certain branches of production and on deliveries originating from abroad.

Thus, more than the average:

- in heavy industry: steel metallurgy, metallurgy of nonferrous metals, the chemical industry;
- in the industry of consumer goods: the textile industry, the clothes industry, the leather industry.

It is obvious that imports enter production in the form of raw materials and capital goods. The column showing the share of imports in material costs (cost of manpower and indirect costs being excluded from the aggregate value) shows that the share of imports in these places sometimes reaches half for certain branches.

Two types of imports act on consumption and investments:

- manufactured products (machines and consumer goods)

- semi-finished products and basic materials meant to be converted.

The role of manufactured products is relatively easy to establish.

It is not the same for basic materials which must be distributed between the final demand and production, and one must deduct the quantities used for goals of production planned for exporting. One will thus obtain the net utilization of imports for consumption and investment and the imported finished products will be added to the imports. The following table shows the share of imports in the final demand for Poland and for the countries of the O.E.E.C., deduction of the services which are non-productive (in value) having been made.

Elements of the final demand	Poland (1957)	Countries of the O.E.E.C (1953)
Consumption	12.3	15.4
Accumulation (savings)	12.0	10.6
Exports	11.8	15.7

In Western Europe, imports play a greater role in consumption and exports; in Poland, in savings. Such a difference is very clear and it synthesizes the differences created by the external factors (imports) with regard to the process of industrialization (savings equals investments + stocks) in the industrialized countries. It is obvious that the share of imports in savings would have been more important at the beginning of the period of industrialization.

The share of exports in the production of different industrial branches in Poland is presented as follows:

[Refer to table on page 14 of original document]

One will notice a heavy share of production assigned for exporting in the production of

- combustibles - - One notices here the increase of indirect exports ; they can be understood only thanks to the matrixes, since they are used in other brances and exported as the final product. The indirect exports were on the order of 18% in the export of combustibles in 1956 and already were 26% in 1958. Altogether, exports of coal (direct and indirect) in 1957 comprised 35.6% of the net aggregate production, of coke - 27.8% and of lignite 66%.

- Metallurgy of non-ferrous metals - - Here, the chief role is sustained by zinc, 70% of its production is exported.

- Steel metallurgy - - The indirect exports reached 41% in 1956 and 51% in 1958 of the total exports.

Two kinds of comparisons can throw additional light on the role of exports in Polish production.

The first will be of a static nature -- comparison will be made between the participation of Polish exports(at the cost of the factors) in the production of various branches of industry and the same participation in the industrialized countries of Western Europe (the data treated statistically and made comparable).

[Refer to table on page 16 of original document]

One deduces from the table that for coal mining only the percentage of participation of Polish exports in production [illegible].

is at the same level or surpasses the participation of Western exports in their total mining production. In metallurgy and mechanized industries the percentage is already less significant and under the European level; in the other industries the differences are still clearer.

The second comparison will be of a dynamic nature: the point is to find the relation between the increase of production and the increase of exports from Poland and in the Western countries. The data is presented in the following table:

Share of Exports in the Growth of Production and Imports in the Years 1950 - 1955 in Percentage

(Poland 1955-1958)

[Refer to page 17 in original document]

As can be seen, the exports participated only very lightly in the growth of Polish production in comparison with the other countries. The play of a few factors can explain this.

- The delay of the theory and practice of Polish foreign trade in relation to the theory and practice of industrialization,
- Orientation of the "inward-looking" kind on the part of Polish economy. This orientation, in our opinion, can exist in a closed economy as well as in an open economy. It depends especially on a certain mentality on the part of the individuals participating in the productive process, whether it be the leader or the employees;

- The lower Polish technical level as compared to Western European countries. By "technical level" not only the level of technical designs or technological execution of products is meant, but also the level of efficiency of the apparatus for foreign trade -- surveys, advertising, sales service, etc.

- The concentration of exports in the industries in which the value of the product is less (industry of combustibles, metallurgy of non-ferrous metals) than in the export industries of Western Europe (chemical industry, industry of consumer products with industrial origin).

The input-output matrixes can also be useful for another study, that of the share of exported production in the cost of production. The problem can be examined from two different angles:

1. What percentage of each component of the total product is exported abroad is to be seen first. To facilitate a more extensive analysis, the total product will be divided according to the two great sources of formation : the industry and the other branches of the national economy; the two combined figure in the column of total material production.

[Refer to page 19 of the original document]

The data furnished by the above table is rather significant, especially under the two entries of salaries and depreciation. They show that a total of 12.3 % of the labor expended in the country was exported in 1957 and that 13.5% of all the depreciation is due to the exports [i.e. -- 13.5% of all the means of production -- industrial buildings,

machines, etc. - in [illegible] being worked for exports].

2. To complete the preceding Table which is set up for horizontal analysis (the percentages may be totalled vertically), the table below will be presented comparing the structure of total production in industry (by elements) and the structure of exported production (by elements). [Refer to table on page 20]

The share of salaries and depreciation (amortization) is greater in the structure of the costs of production exported than in that of industrial production taken as a whole. This is certainly explained by the fact that the manpower used in the exported production is more expensive (better paid; the standards for quality are stricter and, as a matter of fact, the ratio of the quantity of manpower exported per unit for the domestic market is greater than that per unit assigned for the domestic market).

The same ratios exist for amortization. Exported production is produced on more expensive machines since they are more modern. These differences are found again inverted under the headings "results" and "taxes". These taxes on exported production are less than on the total production (which moreover is normal for all the countries, and recoverable through the taxes established on imports received in exchange) and the account for industrial production to be exported is balanced by a loss, contrary to the economic results registered for the total industrial production. These conclusions, drawn from the analysis of input-output matrixes must, in order to be more extensive, be completed by an analysis of the structure of foreign trade in view of the fact that the share of exported production is not equal in all branches of the national economy.

b. Foreign Trade and Technical Progress

An effort is being made to discern the main points of the influence of foreign trade on technical progress in three fields:

- in exports; the demands of the buyers (importers outside of the country) compel the producers (inside the country) to equal the average world level (in conditions of minimum demand) or a higher world level (in conditions of extreme demand).
- in imports: in principle one tries to import materialized technical progress in the form of modern capital goods and aesthetic and functional consumer goods (i.e. liable to correspond in the most effective manner with the practical needs of the population).

- in domestic production: in principle domestic production is apt to imitate foreign technical progress (being based on the imitation of imported products for export needs) and to substitute its products for imported products (expensive products) in case of a deficit balance of payments.

In the countries with a planned economy, these trends are very ~~acute~~ strong. Up to 1956 the connection between world technical progress and domestic production was assured by ~~commercial agents~~ brokers. The transference was ineffective and inadequate. Since 1956 they ~~are~~ have been assisted in this task by the technicians of industry who pass on the demands of the foreign buyers, trying at the same time to observe the methods and the designs in the importer-countries and those of competition with them and select the most modern products ~~in the sense~~ from the standpoint of importing.

Furthermore, the stepped up development of chemical industries begun in the years 1956-1958 in the industrialized countries of the East furnishes a basis for substitutions of imported raw materials.

These trends can be summarized in the following way: if one claims that technical progress is leading, in the end, to an increase of the productivity of labor, the exchanges which rely on technical progress will attempt to become oriented toward the products where the profits of productivity are highest. Very likely this will happen in the case where the domestic level of technical progress ~~will catch~~ catches up most rapidly with the world level.

For the countries in the East this demand belongs essentially

to the industry with machines. The Polish example proves it in a clear manner:

[Please refer to page 23 for a table]

As regards substitution, the trends can be presented as follows: domestic production will be oriented toward production which, based on raw materials of local origin, will be able to replace the importing of products the country lacks.

For Poland, which suffers a deficit of raw materials, the chemical industries certainly play an important role. Its role as producer of substitution goods clearly stands out in anticipation of the above as the following calculations show: [refer to page 24]

c. Foreign Trade and Investments

It suffices to break down investments (I) made in the country into two components: I_i (investments in commodities produced domestically) and I_m (investments in imported commodities); and one is in a position to develop as many equations for the relationships between investment and foreign trade as there presently exists for investments (taken as a whole) by introducing these two components everywhere.

This development seems to us superfluous here. Our classification of investments is considered from a different angle; we separate them into:

- investments in exporting industries (leading to:

1. a change in the structure of exports;

2. an increase of export returns by increasing the volume of pro-

duction exported;

3. maintenance of the export structure;

— investments in the industries which produce for the domestic market;

— investments in the industries which prompt an increase in the consumption of imported goods originating abroad or goods previously provided as they were before being exported abroad.

In the point of view of foreign trade, the first kind of investments offers the most interest. On its orientation depends the degree of "capital-intensity" [intensité capitalistique] of exports which - transformed - takes the form of $\frac{I}{Dn}$

where I=investments
D= net export revenue (in currency).

As will be shown later, this formula represents the point of departure for the final formula synthesizing the effectiveness of foreign trade. But the problem of the volume of investments required per unit of export revenue cannot be solved without recourse to the matrix input-output calculations. Indeed, the degree of capital-Intensity must be evaluated the length of the intersectorial chain of production down to the last link from where the final product for exporting comes out. Investments thus established will have a collective value, i.e. lumping together the fixed capital assets in all the industries cooperating in the manufacture of the given product.

It is obvious that consideration of the investments singly by unit of revenue would not suffice to throw complete light on the role

of investments in the structure of foreign trade. In order to complete the table the ratio must be established for the returns on exporting each product in relation to the returns on exporting all of the products (i.e. - the relative position of the product in the export returns).

One takes as a collective unit of total revenue one million units of currency (one million zlotys=one million rubles=$250,000). Having calculated the volume of investments by unit of revenue and the ratio of revenue in the total revenue, one can easily get the stabilized value of the investments for each product. Thus one will be in a position to draw conclusions bearing on the substitution of products for which the investments to be made are not a dependent variable of the returns but really a function of the efficiency of the process of production or of extraction of the product. The results obtained are found in the table which follows. In this table the structure of exports for 1959, the last year for which the statistical data was available, has been calculated and for 1965, the final year of the Five-Year Plan, in order then to proceed to a dynamic analysis. [Refer to page 27 for a "capital-intensity" table]

The results of these calculations are rather striking. One can logically tend to think that the export of capital goods involves voluminous investments per unit of revenue, and the reverse for textile exports. These calculations prove otherwise. The export of products located on the top of the table and which bring in 2-3 percent of

export revenue require equal investments with those carried out in the branches where one can expect 25-30 percent returns coming from exports (bottom of the table).

Such a dispersal of the effect of investments is hardly discernable without economic numerical calculations and the use of modern tools of analysis (such as the input-output matrixes).

It will be interesting to analyze how the capital-intensity shares in the dynamics of the structural change of Polish exports. One will study the same indices of investments necessary for obtaining one unit of export returns in relation to the growth fund of returns; one will affirm that this increase of the total for the products is 100,000 units (in the case examined - 100,000 rubles or 100,000 zlotys). The division of this sum between exported products thus reflects the structure of the growth of returns and the balanced investments furnish the comparison of the effectiveness (or the capital-intensity) in dynamics.

The same polarization of the effects of investment is observable in dynamics. For the period 1959-1965 the greatest growth of returns is anticipated for exports of complete industrial installations which have one of the weakest coefficients of investment per unit of returns. But then come the returns due to the increase of sugar exports which have the lowest coefficients of investment.

The analysis of these can be presented graphically:

[Refer to page 29, page 30 and page 31]

The broken line parallel to the abscissas represents the average capital-intensity. The numbers correspond to numbers pertaining to the product in the tables.

The table for the projected period 1959-1965 can now be established.

[Refer to page 32 for the table]

To the first group belong the products 1-3

To the second group belong the products 4-13

To the third group belong the products 14-23

The conclusions one can draw from the above are as follows:

- In relation to the beginning structure of departure (1959), the structure of returns (which corresponds to the structure of the value of exports) shows an increasing participation of the products having a weak coefficient of capital-intensity (products 22-35 on the first two tables). These products share at the rate of 25% in the 1959 and 35% in 1965.

Participation of the products having a strong coefficient of capital-intensity remains unchanged.

The first observation shows that there is a conscious effort toward lowering the capital-intensity of Polish exports.

The second observations shows that a part of the export structure remains rigid. This is certainly due, on the one hand, to the structure of the demand on the part of the commercial partners of Poland (who prefer to import products with a weak degree of "labor-intensity"), i.e. to import capital in exchange for labor; on the other hand, this is due to the traditions (effects of habit) of Polish production (accustomed to producing products 1-20) and to Polish trade traditions (accustomed to selling the same products on the foreign market). These traditions are founded on production on the non-necessity of introducing technical progress into production; for trade on the non-necessity of discovering new markets.

The rigidity of the structure can be broken by the plan based either on economic stimulants (premiums and bonuses for participants in the production and sale of products 20-35) or on strictly defined imperatives (curbing of production-sale of products one-20, investments in the production of products 20-35)

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Certainly this is considered, at least to a certain degree, in the plan for structural changes, graphic presentation of which is found on page 31 and the summing up in the table on page 32. The third group with the lowest coefficent of capital-intensity participates at the rate of 62.8% in the growth of returns. Nonetheless it remains that the highest percentage of investments is made in the export production of this group having the highest coefficient of capital-intensity, which certainly still constitutes a wasting of means (considering the weak contribution of foreign exchange -17.%- in the growth). One is liable to think that such a diversion is dictated by the difficulties of the balance of payments.

III. Structure of Polish Foreign Trade

It has been shown in the analysis of the relations between foreign trade and production, the structure of exchanges is found linked in an almost linear fashion to the structure of production with the exception of two factors introducing deviations in this apparently simple function: (or rather the ratio $\frac{\text{domestic technical progress}}{\text{world average of technical progress}}$) and the supply-demand of the foreign market. When we examine the aggregate structure of Polish foreign trade, it is very obvious that the process of industralization forged numerous relations between the four large groups of products:

- Machines and capital goods
- Manufactured consumer goods (of industrial origin).

[Refer to pages 35 and 36 for tables.]

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The relationship between these four large groups of products were a function of the general economic policy in each period. In a general way, the structural changes were for a country as such: on the way to industrial development (1945-1949; 1950-1955), moderately developed (1956-1960) and beyond reaching extensive industrial development (1961-1965). Thus the structure of exchanges corresponded well in the first and second period to that of the underdeveloped countries on the way to industrial development (deficit balance of capital investment goods; surplus balance of raw materials and agricultural products); in the third period, to that of industralized but not fully equipped countries (even balances) and in the fourth period to that of the highly industralized countries (surplus balance of investment goods; deficit balance of raw materials). Moreover all of the socialist countries have followed the same process although the differences in the rhythm of this trend are considerable. (The process was being developed more rapidly in Czechoslovakia, East Germany and Hungary where the connection between foreign trade and economic development is closer; it was somewhat more drawn out in the USSR which developed in an autarkic way before world war II isolated from world trends of exchanges.)

[Refer to page 38]

In order to study these similar stages with more extensively, they will be examined at the level of each of the four groups of products.

A Raw Materials

Coal retains a choice position in Polish exports. For a long

period one could even term Polish exports as being of one nature exclusively since the direct exports of coal surpassed 40% of the production. Furthermore, the part coal played in the exported production of other industrial branches was enormous, especially in metallurgy and in the chemical industry. Starting in 1957 the prices and demand for coal on the world market suffered continuous drop offs. This undermined the balance sheet of Polish foreign trade, but being produced at a final stage of industrial development had no crushing influences which could have appeared in the course of the stage forced industrialization when the deliveries of machines necessary for industralization depended largely on coal exports. (Refer to page 40).

The ascending line of coal exports will be absorbed by the surplusses of structual balances in the other groups of products. In addition, the increase of the capacity of industries by embassies using coal in the material imports (such as combustible or raw materials) must lead to an increase of indirect coal exports. Thus, indirect coal exports (in relation to the total of exported coal) reached 25.8% in 1954, 44.3% in 1959 and ought to reach 63.4% in 1975 which implies a characteristically qualitative transformation of the country which is becoming industralized.

(Refer to table on page 41)

The coal example is very instructive for the countries becoming developed which must rely on a single resource or product for exporting

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in the first stages of industralization. In order to make this means of stablizing the balance of payments more adaptable to the structure of the countries which already have reached a certain degree of industralization, it was necessary to transform those means even on the domestic level of the country and first to export in the form of semi-finished products (laminated products for example) and then in the form of finished products (running the gamut of chemical products).

This possibility is certainly more limited for the country which exports agricultural products, tropical fruits for example. For this reason the economic development of these countries must depend more on the policy of gifts and non-repayable aid, while the development of those exporting raw materials with a more or less ready demand (iron ore, non-ferrous metal ores, cotton, etc.) can be considered and solved as before.

B. Machines and Equipment - Capital goods

The problem of exporting machines is far from being homogeneous - several serious questions are posed at the very core of the problem. One can tackle them by degrees.

The total exports of machines and other capital equipment increases continually, as was shown in the structural balance sheets of foreign trade and as is proved by the data based directly on the export worth of these products:

[Refer to page 43]

In spite of the fact that the trend for exports is very favorable, the international comparisons of equipment exports for Poland and the

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other countries still show a weak effort in this domain.

In relation to the other socialist countries, Polish exports of capital equipment trail behind those of East Germany, Czechoslovakia and Hungary:

[Refer again to page 43]

It is true that the industrial potential of these three countries (as well as staff personnel, cadres and technicians) was already very great before world war II and that it was developed by the Reich during the war for military ends. Nevertheless, such domestic competition within the zone of member countries of the COMECON promoted specialization in production and in trade exchanges which followed on the part of countries already industralized. Poland also had the luck to work out the periods of industralization that we have called "forced" and "spontaneous" before the introduction of specialization of the inside of the COMECON zone. The comparison of the exports of machine equipment per inhabitant reveals still greater differences:

(Refer to page 44). It is certain that the light exporting of machines and equipment goods was due to industrial under-development.

The rate of increase in exporting equipment was less than the general rate during the years of 1950-1954. In 1955-1960 a brusk increase of this rate was observable, being attributed to changes of a qualitative nature. In the years which follow this rate will be slackened but it will always remain higher than the average rate of exports.

[Refer to page 45]

An accelerated rate of machine and equipment exporting can also be due to qualitative changes which are produced in the industry itself;

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revealing:

- The increase of the productivity of manpower.

- The improvement of the capital output ratio which is due in part to the changes in productivity and in part to perfecting the means of production:

[Refer to page 45]

- The diversification in production of ~~equipment~~ capital goods.

The structure of machines and equipment goods exporting was, in the beginning, concentrated to a such an axtent that in 1951 the exports of rolling stock comprised 83% of the exports in this group.

A certain diversification was introduced shortly after the appearance of ships and machine tools in the exports. These three kinds of production in themselves comprised the majority of the exports. Such a structure for exporting is not the best in view of the fact that these products belong by their technological nature to the category of "material-intensive" products and the effectiveness of their exporting parallels that of semi-finished products, especially when one considers that a high percentage of the ships used had to be imported from abroad and were estimated in the total worth (motors and equipment); in fact particularly heavy machine tools were exported (in 1959, the export of machine tools reached 8.9% of the total production estimated in units, but 23.6% of the same production estimated in physical quantity -- weight of machine tools). Trade understood on such a base is reduced roughly speaking to steel exchanges (plus a small quantity of manpower) exported by Poland against manpower (plus a small quantity of steel) imported by Poland. It is obvious that such a domestic exchange under the heading of "capital goods" was not without influencing the terms of the exchange (the prices of labor-intensive machines rise more quickly due to being linked to salaries, and those of material-intensive machines which are linked to the prices of raw materials, as well as the balance of payments. Thus the value (in foreign exchange returns) of a ton of rolling stock exported by Poland was 1,791 zlotys ($448) whereas that of a ton of rolling stock (in foreign exchange payments)

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imported by Poland was 5,479 zlotys ($1,370). The same disparity (more attenuated for the other headings) existed in the whole structure of machine and equipment exchanges (data for the year 1958).

[Refer to page 47]

x) A calculation identical to that which was made for the indirect exports of coal can be established for steel. It will demonstrate a very much greater disparity between the prices of steel imported indirectly (in relation to steel indirectly exported) than between the steel imported and exported directly:

[Refer to page 48]

The price of a ton of steel exported indirectly is only 5.8 times higher than the price of a ton of steel in direct exporting. In England this ratio is 9.5 times, in West Germany 9.25 times. And, in another ratio, the price of a ton of steel in indirect imports is two times higher in Poland than the price of a ton indirectly exported, while in Germany it is only 30% higher. These ratios act very unfavorably on the terms of exchange. (The terms "imports" and "indirect exports" mean here the imports and the exports of capital goods including and machines. In indirect exports, estimated according to the weight of steel, rolling stock shares at the rate of 33% and ships at the rate of 24.4%.)

A Rational solution thus compels recognition namely to change the structure of exports in machines and other capital goods by introducing products whose high level of transformation causes the

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value of exports to rise.

If One takes the value of a ton of metallurgical products for a starting index of 100,

The indices of value for a ton of capital goods according to the degree of transformation present themselves as follows:

Metallurgical Products	100
Metallic Constructions	200-400
Boilers	500
Construction Machines	700
Ball Bearings	2,800-10,000
Universal Machine Tools	13,000
Machines tools of precision and automation	1,800-4,000
For the production of light concretes	600
Refinery factories of sugar	700
Factories for heavy machine tools	1,400

The complete industrial installations selected by Polish exporters as a product of average transformation, designated to replace in uneffective exports, among the easiest to produce. In the development of machine and equipment exports originating from Poland, there is anticipation of a relative diminuation of exports in ships, rolling stock, and machine tools and a relative increase of exports, of complete industrial installations and other machines which entails comparatively weak investment expenses as was demonstrated on page ___.

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/Refer to table on page 50/

C Agricultural Products and Food Stuffs

The export of agricultural products and food stuffs was part of the line of Polish foreign trade before World War II; these exports rose then to 35% of the total, during the post war period they were influenced by three factors inherent in the economic growth of the country, namely:

- The agricultural policy of the government and the behavior of the rural population in regard to the socialization of agriculture;

- The industrialization and the massive migration of the rural population to the industrial centers;

- The increase of buying power and the great possibilities for the domestic market to absorb agricultural products.

The agricultural policy of the government in the years 1948-1956, based on the principle of obligatory deliveries of agricultural products with low prices by the peasants, on forced expropriations and the unification of the peasant masses (creation of collective farms with a low output) produced economic unbalance on the agricultural market (in the realm of prices, through the inefficiency of agricultural production) and social unbalance in the rural world (hostility of the peasants in regard to governmental policy). In 1956 an effort was made to remedy the drawbacks arising from this situation.

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- The process of industrialization instigated the return flow of rural youth to the cities. Conceived in large part as a means of suppressing the latent unemployment in rural regions, the process led to the polarization and maintainance of energetic and capable manpower in industry and conservative and ageing manpower throughout the countryside.

This prevented, among other things, the introduction of modern agricultural methods to the villages.

- Rural manpower being plentiful in industrial centers has changed from an auto-consumer element (outside of the market) producing agricultural products (for the market) into a element buying agricultural products (from the market). In order to maintain the balance, even though not real, it was necessary to increase the volume of agricultural products delivered to the market into two units; the volume of agricultural products previously produced by the people who abandoned agriculture and the volume of agricultural products bought by the new consumers (instead of auto-consumption). One must add a third unit, namely the volume of agricultural products bought by industrial manpower thanks to the increase of its buying power (it is to be noted that Engel's law is not in question here and the consumption of agricultural products and food stuffs is not yet satiated).

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The satisfaction of these needs could be accomplished by various means; by the expansion of agricultural production (which has not been done in view of the circumstances described above); by the reduction of exports and imports of agricultural products (the two methods have been effectively applied by the government); by raising prices (a policy also practiced), by rationing (practiced for short period), etc.

Because of these different causes and measures, exporting has diminished considerably.

After the 1956 changes, the new agricultural policy adopted was likely to lead to a much greater efficiency of agricultural production. On the other hand, conservatism of the peasants tended to diminish; [illegible] modern agricultural methods freedom of the city was won in the villages. Thirdly, consumption in the cities began to be oriented toward goods of industrial origin.

It was, in fact, possible to increase exports in food stuffs as the following table shows:

[Refer to table on top of page 53]

The trend of exporting agricultural products, clearly increasing up to 1960 for products originating from animals, must then give place to an increase of vegetable exports:

[Refer to table on bottom of 53]

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This is explained by the trend towards substituting for exports of certain vegetable products, up to now exported in the form of raw materials, exports of the same products now transformed into finished or semi-finished products. These The same trend is found again as that previously observed in the case of the two large groups of products analyzed before.

/Refer to table on top of page 54/

D Finished Products of Industrial Origin

The difference between the structure of Polish exports in that of the advanced industrial countries of Western Europe now consists mainly in light exporting of finished products with industrial origin -- which equal only 5.0% of the total for exports, whereas

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in the countries of Western Europe the proportion is 35-40%. Apart from the reasons already cited, namely the inadequate level of technique and of technology for industrial design (which, however, are essential elements for making the finished products salable on the world market), one must take into consideration here another important element, namely that the exported production of finished products depends in a large measure on the initiative of private producers, and not on the general initiative (or generalized) of the state, as it is the case for the other groups.

The necessity for private economic stimulants is thus indispensable. It has been debated for a long time and different methods of payment have been suggested: export funds, export premiums, the possibility of returning part of the returns (in foreign currency) for personal purchases, etc. We consider that without an effective system of economic stimulants exports of these products will have only weak chances to increase. As regards state initiative in this sector, two points are worthy of being mentioned: one based on reality, the other on possibility.

The first point - reality - rests on the existance of an agreement which was concluded between socialists states providing for the exchanges of superfluous stocks of finished consumer products of industrial origin. Since stocks of these products for several years have continued to increase throughout all the countries with a planned economy, the agreement introduces a

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kind of institutional forwarding or despatching which links together the circuts of domestic commerce in the socialist countries.

The second point - a possibility - in perspective rests on the development of the chemical industry which for the intensification of exchanges in this group, can play a role analogous to that played in the intensification of exports in capital goods for the development of the machine industry. The chemical industry in Poland is arranged in group based on four large basis of raw materials:

1. For non organic exports and the nitrite industry (nitrogen base)
   - fossil salt
   - calcite
   - sulphur
   - barytes
2. For exports of products derived from coal.
   - Tar
   - benzol
3. For exports of products of chemical synthesis:
   - natural gas
4. For exports of products of petroleum chemistry:
   - refined petroleum with a basis of emported crude petroleum (refinery under construction with a capacity of 6 million tons).

The development of the chemical industry gives a strong impulse to exports of chemical products whose increase is surpassing the average rate of exports increase.

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[Refer to page 56]

The balance sheet of chemical exports, which has been showing a large deficit, has been diminishing considerably in the years 1957-1960 (the ratio between exports and imports improving from 1:59 to 1:3.4) and this trend is going to continue in the years 1961-65 (the ratio demonishing to 1:2.5).

[Refer to page 57 for table]

IV The geographic structure of trade

The geographic structure of Polish foreign trade in the last years has been marked by very great stability. The division of exchanges between socialist and capitalist countries for a rather long time period has been 60:40.

One can explain this by the fact that there has been a period of relative stability in international policy but one cannot explain it if one considers the fact the geographic structure of exchanges is linked as much to the structure by products as to the structure of domestic production to which is linked the structure of products. If we were asked to present approximately the general concept of foreign trade throughout the world, we would attempt to present it as follows:

[Refer to page 59]

From such a presentation two main conclusions can be drawn:

a) Foreign trade is often analyzed by its monetary aspect. Such a method leaves one to a large degree on the surface of the economic mechanism;

b) The connections between the four "classes" or "divisions" which

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correspond to four stages of analysis for foreign trade (structure of production, structure of exchanges by product, geographical structure, monetary effects) are different in the three economic systems existing in the contemporary world.

In the capitalist system the connection is circular, based on the feed-back, i. e. the structure of production determines the structure of exchanges by products, the latter structure decides in turn geographical structure, monetary effects follow, but it is the monetary effects (terms of exchange, migration of foreign capital, balance of payment) which in their turn influence the structure of production by means of the triangle of price: profit: rent in the country.

In the socialist system the connection is linear, the structure of production influences the structure of exchanges, the latter decides geographical structure (if one does not account for political influences) and monetary effects come in last place constituting the last link in the connection, without giving place to reciprocal influences.

In the underdeveloped countries the order of connections is reversed. The geographical structure of exchanges (belonging to a monentary zone, a sphere of domination, a circle of common political interests) decides at the same time the structure of exchanges by profits and monetary effects. The structure of exchanges influences in its turn the structure of production.

The manifold conclusions one can draw from this diagram go beyond the frame work of our analysis. Returning to our subject, the

geographical structure of Polish foreign trade is presented as follows:

[Refer to page 61]

The concentration of exchanges thus is rather great. If in each group of exchanges one arranges the countries according to their order of participation in Polish trade with other countries, the following table results (calculations made for 1958):

[Refer to page 62]

The concentration inside the geographic zone of socialist countries reaches 77%, inside the zone of under developed countries - 48% for the three trade members in each zone [sic], 56% inside the zone of the advanced capitalist countries. Such a concentration is rather strong, if for example one does not overlook the degree of concentration of exchanges inside the new customs zone in Europe, in which the industralized countries participate, which is less than that of Poland. Nevertheless if one compares a high degree of concentration in exchanges by all the underdeveloped countries, one is likely to think that Poland is found half way between some and halfway between others.

A. Trade with the Socialist Countries

Trade with the socialist countries has been influenced by various factors during the post war period. In general one can distinguish two groups of factors and in each group the principal factors are as follows:

1. Group of economic factors:
Possibility for importing industrial raw materials, possibility for developing a specialization in trade of equipment goods.

[Refer to the long list, page 63]

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2. Collection of political factors: difficulties in trading with the rest of the world during the cold war period.; effect of USSR domination especially in the years 1946-1955.

The two groups of factors are found combined in the decisions of the organization Council of Mutal Economic Aid, which will be called here COMECON.

It can be observed in regard to importing raw materials that a large part of them - those of vital importance - come out of socialist countries. The Structure of imports is presented as follows:

[Refer to page 64]

a. The reduction of participation is described to the appearance of American credits and to the deliveries proceeding from them.

It is apparent that such geographical structure of imports in raw materials was not imperative. This nevertheless was formed during the cold war and in some fashion has become inflexible. Moreover, in view of the fact that transportation and transfer costs play a large role in the purchase cost of raw materials, it must not be forgotten that these deliveries all come from the neighboring countries. It is certain that imports of the raw materials in question could be furnished by other countries. The problem of exhhanges came up none the less. For a long period Poland used coal almost exclusively to pay for the deliveries from abroad. The countries capable of furnishing the raw materials desired (for example Iraq-gasoline; India, French West Africa, Morocco-iron ore; Egypt-cotton) did not have such a need to import large quantities of coal. Thus cotton was imported from Egypt by

Czechoslovakia which exported to Poland in exchange for coal. Other large annual deliveries of Polish coal to the USSR had been anticipated according to an official contract fixing very low prices (reparations contract). The USSR, in exchange, delivered iron ore.

While the industralization of the underdeveloped countries continues ~~going~~ in Poland is reaching a more developed stage of industralization, to the point where these equipment goods may become an extensive part of its exports, it is not to be denied that its geographic structure of importing raw materials will change to the benefit of importing those from the underdeveloped countries.

Nevertheless one can hold that in the near future the USSR will remain the most important furnisher of raw materials for the countries in the COMECON.

[Refer to page 65]

A completely different problem was posed by specialization on the inside of the COMECON countries.

The new by-laws of the COMECON provide for vast economic specialization on the interior of the bloc. Let us quote from the most important articles:

"By-laws of the COMECON" (signed 14 December 1959 in Sofia, Bulgaria)

Article I - Goals of the council:

1. The Council of Mutual Economic Aid has as its objective to contribute, by means of liaison and the coordination of efforts of the member countries in the COMECON, to the planned development of the national economy, to the increase of economic and technical progress in the member countries, to the industrialization of the less industrialized countries, to the continued growth of the productivity of labor and to the constant growth of the well-being of the nationals inhabiting the member countries of the COMECON.

Article III - Functions of the council:

1. In agreement with the goals and principles of the by-laws, the Council of Mutual Economic Aid

a) Organizes

- Extensive economic, scientific and technical cooperation between the member countries to exploit in the most logical manner their natural resources and to accelerate the development of their productive forces;
- The working out of recommendations in the domain of the most important economic relations which result in plans of economic development for the member countries, with a view to coordinating these plans;

- The study of economic problems which concern the member countries;

b) Cooperates with the member countries in the working out and the accomplishing of common action in:

- The development of industry and agriculture in the member countries of the COMECON on the basis of international division of labor between socialist countries, as well as on the basis of specialization and cooperation in production;
- The development of transportation in order to insure the possibility of carrying out the increasing transportation of goods which are the subject of international exchanges between member countries;
- The most efficient utilization of investments made in the manufacture of industrial articles in which other member countries participate;
- The development of sales in merchandise and services;
- The exchange of the fruits of scientific and technical progress in the domain of theoretical research and practical application.

The problem of specialization poses serious theoretical problems. One can generally distinguish two levels of specialization.

- International intersectorial specialiazation (exchanges of products from one sector for products from another sector);
- International intra-sectorial specialization (echanges of types of

products manufactured inside a sector and in a branch of it).

The second specialization implies a rather high level of industrialization and is practiced in the exchanges between countries of Western Europe; the first specialization can take place in exchanges between countries having different levels of development and has been known since antiquity. The difficulty is the passage from the first to the second kind of specialization. The country which is industrializing in principle constructs an industry based on a high technical level corresponding approximately to that existing in the highly industrialized countries. In contrast, in such a country the standard of living (and mainly the salaries in the sectors which are becoming industrialized) does not correspond to that of the highly industrialized countries. Therefore the machines produced in new sectors, for example, are rapidly becoming less expensive than imported machines. The first level of specialization loses force in this period but the second level has not yet been introduced. Such was the case in trade between Poland, on the one hand, and Czechoslovakia and East Germany on the other hand in the years 1955-1958. One can expect a situation of this kind in trade between certain countries on the way to becoming industrialized and those countries already industrialized.

The second level of specialization, that of international intrasectorial specialization, offers unquestionable advantages on the condition that:

1. There exists a more or less close correlation between production costs (per unit) and the scale of production.

2. The elasticity of demand on the domestic market is slight, or less flexible then the possibilities of lowering production costs.

/Refer to page 69/

An efficient and advantageous specialization is conceivable only for long periods which presupposes the appearance of new capacities for production, modern ones oriented toward international specialization. It would be rather easy to establish the formula which would reflect the advantages originating from intersectorial specialization. Suppose that two countries A and B have the possibility for producing goods 1 and 2 in order to satisfy domestic demand. In the framework of specialization, country A must produce product 1, country B, products 2, the two covering the whole demand (domestic demand of both countries).

The advantages are shown by the ratio

$$E_s = \frac{A - S}{A} \quad ....(1)$$

A = production costs before specialization

S = costs of the same production after specialization

Production costs before specialization will be

$$E_c = e_1 P_1 = e_2 P_2 \quad ..... \quad (2)$$

where e_1 and e_2 = coefficients of production efficiency by unit

P_1 and P_2 = products of goods 1 and 2

Thus one can establish the generalized formula of advantages arising from specialization:

[See Red star on document p. 70]

e'_1 : coefficient of production efficiency for product 1 after specialization (to this is added the additional costs of transportation and of organizing the specialization)

P'_1 = volume of production 1 after specialization

d_1 = price of exporting product 1

d_2 = price of importing product 2

e_e = average coefficient of export efficiency

What is meant here by coefficient of efficiency is the number of national monetary units necessary for spending on production going toward exporting with a view to obtaining a unit of foreign currency in export returns: the value E_S shows the percentage of profit which reflects the ratio between the advantages of specialization and production costs in a self sufficient economy. In the end profit will always be made over the costs of production.

The advantage of specialization can be counterbalanced by subsequent indebtedness -- deficits in the balance of payment which often appear within the framework of specialization since the coefficients of efficiency cannot be absolutely identical in the two countries. One

can solve this by changes in price which pose the problem of special prices inside the group of countries which are specializing or between only two countries. Within the frame of intrasectorial specialization one can, for example, distinguish the following specializations planned by Poland

- In lamination (specialization in contours) with Czechoslovakia
- In agricultural machines -- with Hungary and Czechoslovakia
- In machines designed for smelting, metallurgy, rolling stock -- with Czechoslovakia
- In chemical apparatuses -- with Czechoslovakia, Germany, Hungary
- In complete industrial installations (for production of cement; to export to USSR, Hungary, Bulgaria) etc.
- Etc.

Therefore it is easy to foresee that specialization between the COMECON countries will progress. This is very obvious in, for instance, the export of machine and equipment goods:

[refer to page 72]

It is anticipated that in the period 1958-1965 Polish machine exports will increase 2.2 times; at the same time exports in these products to the USSR will be augumented 3.8 times. The same expansion is to be observed in the case of Czechoslovakia. Hence one can deduce that the "compartmentation" of foreign trade on the interior of

of the COMECON zone is going to grow in the future. The statistical data to be drawn from the five year plans of the member countries is clearly moving in the direction of this observation:

[see bottom of page 727

It is almost certain that the period analyzed already belongs to the stage of intra-sectorial specialization. Passage from the intersectorial stage to the intra-sectorial stage has been marked, as was foreseen, by the dropping off of foreign trade between member countries of the COMECON. In 1958 participation of trade with the socialist countries, in relation to total trade, clearly fell in all of the countries without exception. The most considerable drop off is recorded in Poland's case. Its trade with socialist countries fell off from 70 - 58.4 percent of the total. In the other countries the supplies intersectorial specialization (raw materials exported by Rumania, Bulgaria and the USSR for equipment goods exported by Czechoslovakia, and East Germany and Hungary) nevertheless maintained their indices above 70 percent.

[read table on page 737

In theory one can conclude that in the future there is a possibility of exhausting the advantages rising from intra-sectorial specialization on the inside of the COMECON zone. Flexibility of foreign trade, however, furnishes two other concepts of development in specialization. The first concerns common exports of complex industrial installations by a group of countries (inside the COMECON

zone) to other countries (expecially the underdeveloped countries).

The second depends on common exports of complex industrial installations by a group of countries (the socialist countries and the capitalist countries combined) to other countries. The disparity of a) labor - intensive, b) capital-intensive, c) material-intensive coefficients in the industrialized countries can make

such a combination in specialization highly effective and profitable. In order to have this, the notion of specialization must be integrated with that of cooperation in an homogeneous economic formula.

B. Exchanges with the capitalist countries

The theoritical foundations of Polish trade with the capitalist countries are the same as those which exist between capitalist countries. The function of attendants of foreign trade on internal economic factors remains the same, but the world of different variables stands out since the differences in the level of economic development between Poland and the capitalist countries are greater. If one includes in the function:

a.) Natural wealth (for an arbitrary constant)

b.) The structure of production (for the coefficient of the technical level compared to a corresponding level in the importing country considered as a determinate variable;

c.) Demand on the foreign market (with the coefficient of free trading of merchandise) considered as another variable:

- In the case of exchanges with member countries of the COMENCON the coefficients are not very significant since the level of technique is roughly the same and for the coefficient of free exchange the coefficient of planned development of exchanges is substituted (one can say that each coefficient = 1)

- In the case of exchanges with the capitalist countries these

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coefficients play a very large role. The difference in the level of the technique causes the first coefficient to be < 1; the institutional difficulties of exchanges (bilateralism, long delays in deliveries, obligation of satisfying the current demand, customs tarrifs, contingent political preferences of one side and the other, etc.) also make the second coefficient < 1, the same as the first coefficient (it would perhaps be preferable to fix the second coefficient as K^{-1} since the volume of institutionalization in trade between countries revealing different political systems must always be measured in ordinal numbers orginial members). The large reduction [?] of coefficients slows down the full functioning of the variables b) and c) on the structure of Polish foreign trade with capitalist countries. Thus it is formed especially under the influence of the arbitrary constant. Polish natural wealth enters into Polish exports to capitalist countries in the form of raw materials and semi-finished products, especially agricultural and mining products.

[Refer to page 76]

Raw materials constitute about 95.7% of Polish exports to the developed capitalist countries. The table is no longer the same for exports to the underdeveloped capitalist countries. The coefficient for the technical level is > 1 here (which multiplies the impact on foreign trade with its trend toward industrialization in the structure of Polish production). The coefficient of institutionalization is perhaps 1, and in the cases where they exert political priorties even > 1. For that the structure of exports to these two

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groups of countries is different:

(Please refer to page 77)

The table on page 76 proves that a large concentration of Polish exports to the capitalist countries exist. Products whose individual share in exporting surpasses 2% make up 54.5% of exports to the capitalist countries and 40.9% of the total exports. The geographic concentration is even stronger. The countries - taken one by one - to which Poland directs more than 3% of its exports absorb 73.4% of all exports to the capitalist countries. But it must be pointed out here that the geographic concentration of exports to capitalist countries is less than the total geographic concentration (the trend reverses for structural concentration by product). Since it can be roughly said that the geographic concentration is ruled by the coefficient of institutionalization and the structural concentration by product - by the coefficient of the technical level-, it can be deduced that the institutional differences are less (between Polish exports to the west and to all countries) than the technical differences (between the Western level compared to the Polish level and the average general level compared to the Polish level).

[Please refer to page 78]

The structure of Polish imports originating in capitalist countries is very different; machines and equipment share in it to the rate of 25.1%. Nevertheless raw materials figure very largely in it. As in the case for exports, the distinction between the structure of imports coming from the developed countries and the underdeveloped

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countries stands out .

[See table on page 79]

The structure of Polish exports to the underdeveloped countries approximately corresponds to the structure of Polish imports from the advanced capitalist countries, while the structure of Polish import to the advanced capitalist countries corresponds to that of Polish imports from the underdeveloped countries.

Thus Poland is half way between the great economic transformations which have occured throughout the world. In the case of Polish imports, the concentration is inverse to that existing for exports: products whose individual share in the total is lower than 2% are in the majority and comprise 80.5% of the total.

[Cf. table on page 80]

The difference in degree of product concentration between exports and imports is very noticeable and not advantageous for the balance of the payment. In the case of fluctuation of prices on the world market for a certain number of them or a certain catagory of products, the disastrous effects on exports (drops in export prices for n products) will not be compensated for by equivelent drops in the purchase prices of a number n of imported products (the proof will be furnished in later chapters).

C Exchanges with underdeveloped countries

The problem has been partially treated in the frame-work of exchanges between Poland and the capitalist countries in order to demonstrate the basic differences which exist in exchanges between

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Poland and each one of these groups. Moreover here Poland makes up a kind of exception in exchanges between the socialist countries and the underdeveloped countries. It entered rather late the system of specialization of exchanges and its exports of equipment goods are only now beginning to be admitted, actually sought after, on the market of the underdeveloped countries. Fully industralized countries such as Czechoslovakia and East Germany already are sending a three to four times greater percentage of their exports to the market of the underdeveloped countries.

[Refer to page 81]

The exports of industrial products play a predominant role in the exchanges with underdeveloped countries, and in this respect the structure of exports of countries with a planned economy corresponds almost exactly to that of the capitalist countries. A single notable exception is chemical products: imports by the underdeveloped countries increased most in this area (increase of 50% in the years 1953-1958). Their share in the general structure of imports by these countries doubles that coming from the socialist countries. The fact is not so astonishing if one considers the light development of the chemical industry in the countries of Eastern Europe (except in East Germany).

[Refer to page 82]

Polish exports to the underdeveloped countries have been very irregular. This irregularity is due to the failure of these markets to recognize Polish exports, to the structure of Polish exports which

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only since 1953 began to assume industrial characteristics, to the decisions and role of a commercial treaty. The bilateralism of socialist countries exchanges was so strictly observed that often a sharp increase of exchanges with one country or even with a whole geographic or political zone depended on the signing of a commercial treaty or resulted from one.

Fluctuations of Polish exports to the underdeveloped countries thus can be subjected more to a political or institutional analysis rather than an economic analysis:

[See page 83]

The situation does not present itself in any other way if one analyzes it by countries for geographic zones. Often the decision made by a country to have a product the deliveries of which have been, for one reason or another, stopped or diverted from their normal routes, arrive from Poland or other socialist countries sharply raises the volume of exchanges (for example, the export of Polish sugar to India in 1954). Thus often the decision made in Poland (or in another socialist country) to satisfy latent needs or the actual demand of the population for tropical products such as peper, tea, oleaginous substances and citrus fruits itself also increases the volume of exchanges. These decisions are not made regularly (which gives the volume of exchanges a fortuitous character) and often are not made simultaneously by the two contracting parties (hence the imbalance in exchanges). A striking example is furnished by the exchanges between Poland and India:

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[Refer to page 64]

The same irregularity may be observed in the case of exchanges with Indonesia.

In trade with the African countries the balance of payments regularly shows a deficit. These countries furnish Poland with raw material such as cotton, iron ore, copper and manganese ore and oleaginous substances. Polish exports to African countries cover only two thirds of their imports. This fact is explained, in our opinion, by the low capacity to agree on long term credits and low interest (6%, for instances) or to grant economic aid by virtue of an assistance policy by Poland. The economically stronger countries have come to the point of facilitating these exports by a generous policy of payments, which is not the case for Poland, so that surplus balances of the more advanced countries with the underdeveloped countries

are counterbalanced by the deficit balances of the less advanced countries (such as Poland) with the underdeveloped countries of Africa.

/Refer to page 85/

It seems that Polish foreign trade is becomming oriented instead toward a concentration of exchanges. Such concentration can have foundations which will be at the same time political and economic. As regards Africa, the new aspects are the republics of Nigeria, Guinea and Ghana; for Asia -- India and Indonesia; for Latin America -- Brazil; for the Near and Middle East -- the U.A.R. and Iraq.

Taking into consideration that:

a) Poland's balances of payments with certain underdeveloped countries are on the deficit side,

b) Balances of payments of the advanced capitalist countries with most of the underdeveloped countries are on the surplus side,

c) Polish exports include and will continue to include for a rather long period "capital" or "material-intensive" goods (e.g., complete industrial installations),

d) The exports of advanced capitalist countries include "labor-intensive" goods (with a high degree of transformation),

e) The balances of payments of the advanced capitalist countries with Poland are on the surplus side inside.

It would be possible, with the aid of mathematical methods, to construct a diagram of commercial relationships. This diagram is based on the coefficience to of rentability (production costs -- sale

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prices); the coefficience of effectiveness (comparative advantage of utilization of capital, raw materials, manpower in terms of the cost of capital, natural wealth, salaries, productivity in each country); the coefficience of availability (non-utilized productive capacities, stocks of raw materials, unemployment); it is also based on trends in the balances of payments between various groups of countries. It is possible that such a diagram would be economically advantageous for all countries who participate in it and would bring social advantages to the underdeveloped countries while helping them to leave behind them their misery more quickly.

According to our thinking, all the conflicts which effect the contemporary world can be divided into three groups: fights -- the opponents mutually try to destroy each other; games -- they tend to circumvent the adversary; debates— finally, at the end of which the advantage must be mutual. From the economic point of view alone, this last kind of conflict is productive. In foreign trade fighting takes the form of customs war, embargoes, quotas, etc., i.e. the advantage resulting from it is nil for each party. Games take shape in various ways; effects of domination (discovered and exposed by M.F.Perroux), creation of unilateral commercial bonds and deformation of the economy of a weaker country having a lesser power of negotiation. The economic advantage here belongs especially to one party. Debates, by definition, pose the possibility of a rational decision leading to reciprocal economic advantage which can become the

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moving force of action to follow if the principles of rationality resulting from the debates are put into practice.

Each group of conflict can be translated in economic and mathematical terms. For the "combat" group the mathematical principle applied is the "reductio ad absurdum", and the function utilized is not defined for X=0. For the "games" group, mathematical theory sets up a basis with the idea of balance between the two opposing parties and the result of the game is thus $\alpha X_a = \beta x_b$, where X_a expresses the advantage of party A, X_b that of party B, α and β representing the coefficients of cleverness, the power of negotiation, or simply the power of each party respectively. Since $\alpha \neq \beta$, $X_a \neq X_b$, the apparent balance does not imply balanced advantages.

For the debates group a very much more complex diagram is necessary. We shall obstain from giving here the formula (the problem will be partially solved in the following chapters). In any case the coefficients α and β give place to the coefficients mentioned above, which presumes that in place of trend $X_a \longrightarrow max$ by $X_b \longrightarrow min$, trend $X_a \longrightarrow max$ = $X_b \longrightarrow max$ appears. It is obvious that

for the "combats" group $X'_a + X'_b = 0$

for the "games" group $X''_a + X''_b \longrightarrow X'_a$ (ou X'_b)

for the "debates" group $X'''_a + X'''_b = max > X''_a$

One may wonder if $X'''_a < X''_a$, if in this case party A were the loser, passing from "games" to "debates". Nevertheless, even if

$X"'_a < X"_a$ (which is not proved at all), the phenomenon is of short duration. By introducing the long series it is beyond doubt that $\sum_j X"'_a > \sum_j X"_b$ ($j = 1, 2, 3 \ldots n$ = temporal sequence) and party A must be the long term winner, thanks to action by the two possible trends which must intervene in the "games" system.

- The increase of coefficient "β" to the detriment of coefficient α (in case where party B begins to play the game with several partners, after having found new importers of his products, new creditors, new lenders, etc.).

- The retreat of party B from the game (political or national uprisings) due to the maintenance of the case where $X"_a > X"_b$; $X"_a + X"_b \rightarrow X"_a$;

These two trends tend to diminish (in the first case) and cancel (in the second case) the advantage $X"_a$ of party A in the "games" system practiced on a long term basis but can not appear in the "debates" system.

Moreover, the "debates" system makes specialization in foreign trade possible, specialization for which the equation of advantages has been given in the preceeding chapter.

Polish

D. Foreign Trade With the new Economic Communities in Europe

Polish trade with the two large economic communities in Europe is ruled by different considerations in both cases.

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As far as concerns the European Economic Community [CEE], trade carried out between it and Poland has led essentially to a lowering of Polish coal exports which seriously threatens the volume of exchanges between the two parties. For the European Association of Free Exchange [AELE], the danger for Polish exports grows especially in a lowering of Polish exports in food stuffs. The practical effect of the C.E.E. was exerted on the market up to 1960 through the decisions of the European Steel and Coal Community; it was particularly considerable in Polish deliveries of coal to the C.E.E. countries. The dropping off of coal exports to countries in the European Economic Community was nevertheless counterbalanced by the increase of deliveries to countries in the European Association of Free Exchange.

[Refer to top half of page 89]

Inside the countries of the C.E.E. the indices for Polish exports of coal show a tendency to drop off even more acutely for exchanges with France and West Germany.

[Refer to bottom half of page 89]

Since the A.E.L.E. is still not effectively in practice, the principles resulting from it cannot yet have any particular repercussions on trade with Poland. Once customs tariffs are lowered inside the A.E.L.E., three groups of products exported by Poland to A.E.L.E. countries institutionally will be dangerously exposed to strengthened competition:

a) Exports of bacon and ham to Great Britain

b) Exports of coal to the Scandinavian countries

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c) Exports of timber to Great Britain.

a) The British demand for Bacon is satisfied by exports

from Poland (covering the demand at the rate of 14.3 %)

from Denmark (covering the demand at the rate of 65.8%)

The customs tariff on bacon and preserved pork imports from Denmark was lowered in the new commercial treaty between Great Britain and Denmark to 50% after 1 July 1960 and completely done away with after 1 July 1961. After variations in the origin of British imports brought about by the change of customs tariffs, Poland lost and will lose:

Between July 1960 and July 1961

on bacon: 1.5 million dollars

on ham: .5 million dollars

after 1 July 1961

on bacon: 3 million dollars

on ham: .7 million dollars

b) As a result of lowering customs tariffs inside the A.E.L.E., the Scandinavian countries and Denmark will agree to the preference of coal imports from Great Britain and thus Polish coal deliveries will be reduced.

c) Imports by Great Britain of wood coming from Poland will be replaced by those from Finland. The deviations in Polish foreign trade which can be produced after the creation of customs unions in Europe are important.

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They are particularly important for certain products, a large part of which are exported to AELE countries such as wood (31.9% of the total) agricultural products (35.8% of the total), coal and coke (13.3% of the total), etc. In addition, it is to be noted that in the trade exchanges between Poland and the AELE countries, a phenomenon of double concentration intervenes. The products exported by Poland to the AELE constitute a great percent of the total exports of these products, but also the Polish deliveries to the AELE are represented by some groups of products heavily threatened by competition inside the AELE.

[Refer to page 92].

This double effect of concentration is likely to inflict grave losses on Polish foreign trade, and once variations in the demand for Polish exports are stabilized, these will be all the more likely since it is a question of large exports returns and a part of this revenue is paid for in convertible foreign currency which allows Poland to make its deficits good in certain strictly bi-lateral exchanges where granting credit by the contracting party is not possible .

Polish trade with A.E.L.E. countries is proportioned as follows:

[Refer to page 92]

VI. Foreign Trade and National Income

The problem of the relation between foreign trade and the national revenue can be analyzed within the setting of the following considerations:

- Statistical relations between foreign trade and national revenue
- Problems of substitution between consumption and growth

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as reflected in trade abroad .

In order to establish the statistical relations, the groups of countries presenting common characteristics (as regards the rate of growth in the years 1949 - 1956) will be examined .

Growth rate of the National Revenue 3.3 — 5.7

(Sweden, Yugoslavia, France, Italy)

Growth rate for National Revenue 7.4 — 10.3

(Czechoslovakia, Poland, West Germany, East Germany)

Since the two economic currents stimulate mainly the growth of the gross national product (industrial production and foreign trade) and since growth of the national revenue during the following period depends on the division of this product, one will establish for these countries along with the national revenue — foreign trade relation, the relation between industrial production and components of foreign trade on which the process of growth depends the most -- namely, raw materials and capital goods.

[Refer to page 94]

The table of aggregate statistical relations shows that the order of connections between the growth of national revenue and that of foreign trade cannot be established mechanically, but only in terms of the character of economic progress in the country. It can be seen that the highest ratio is that of Sweden (weakest national revenue growth) and East Germany (strongest national revenue growth). In most of the countries the ratio between foreign trade growth and national revenue

growth surpasses 1.5. Poland presents the only exception, where it reaches .5 only.

[See page 95]

Such a situation is explained if one divides the countries not according to the growth rate of their National revenue, but according to the motive role played by foreign trade in these countries. The countries presenting a very high ratio $\frac{\Delta M}{\Delta R}$ or $\frac{\Delta E}{\Delta R}$ are those whose economic activity depends on foreign trade. Belonging to this category are countries whose exchanges present a high degree of specialization which is is linked to a coefficient of a very high technical level (in relation to the world average).

The case is even clearer if one analyzes the foreign trade of these countries through industrial production. Here, too, the relations of foreign trade are translated by lower ratios than in the other countries. With Poland's entering the specialization phase, its ratio

$$\frac{\Delta E}{\Delta R}$$

is rising and reached .87 for the period 1956 - 1960 (or a value double that of 1949 - 1956).

Hence one can deduce from the above that in a country where the foreign trade rate of growth—national revenue rate of growth is lower than 1, foreign trade does not play an active role. In a country where the ratio is between 1.0 - 1.5 its role becomes important but not decisive. Above 1.5, it begins to be decisive and the country is becom-

ing oriented to the outside, its domestic combination of circumstances becoming part of world circumstances.

Problem of Substitution Between National Revenue and Foreign Trade

Two angles of approach to the problem are conceivable: The first is with a view to strictly confined accumulation, the second is from the National revenue angle (which in addition to accumulation also includes consumption and thus constitutes an approach from the point of view of the economy of man).

If one considers the problem exclusively from the angle of National revenue, two approaches are possible:

a) The machine furnishes an additional production with a value of $100. For this production, of combustibles or raw materials must be used. The value of these combustibles is $110. The solution is simple. One stops working the machine and the national revenue rises $10. (input 110 - output 100.)

b) The worker puts out extra labor and his product is exported abroad. With the salary earned he buys a washing machine for $110. The solution here is obviously simple; the worker is forbidden to do extra work. The $100 owed for the product are not transferred abroad and the national revenue diminishes $100. The effect of these two apparently analogous decisions is totally different. Thus it is necessary in order to analyze the effects made by exports on the national revenue to distinguish between the mechanical factor and the human factor. In its turn, the effect made by imports

on the national revenue is neither direct nor obvious. It is true, for example, that a simple reduction of imports does not equal a corresponding reduction in consumption. The reduction of imports is considered a rectifying coefficient (effect of transmission) that we shall call c.

$$c = b \cdot \frac{1}{p}$$

or

b = degree of complement of the product coming from imports

p = its participation in the structure of consumption.

$$dM(c) = dC$$

$$dC = \frac{b}{p} dM$$

So it is clear that at the beginning of the industrialization period, it was a great deal easier than now to retire from Polish imports the products going to consumption.

This leads us to take up the possibilities of substitution which are offered by foreign trade.

The problem can be analyzed on two different levels:

1 - Substitution Within Exchanges:

(1) imports of consumer goods to be substituted by exports of consumer goods;

(2) imports of capital goods to substitute for the export of capital goods;

(3) exports of capital goods to substitute for exports of consumer goods;

(4) imports of capital goods to substitute for imports of consumer goods;

(5) imports of capital goods to substitute for exports of consumer goods;

(6) imports of consumer goods to substitute for exports of capital goods;

2 - Substitutions in an Open System of Economy

(7) between the imports of capital goods and local reserves of manpower (engaging local manpower)

(8) between the imports of raw materials and local manpower (economy of imported raw materials thanks to a special extra effort).

In order to be able to effect a rational choice, a certain number of coefficients must be established. Except for coefficient c (effect of transmission), it is necessary to establish the coefficients:

- e - Coefficient of relation between productive accumulation (investments) and the participation of production in the national revenue

$$e = \frac{C}{R} : \frac{A}{R} = C : A$$

where C = Consumption

R = National Revenue

A = Productive Accumulation

$$e \cdot A = C$$

- The efficiency of productive accumulation

$$\frac{\Delta R}{R} = \frac{1}{m} \cdot \frac{A}{R}$$

where m = the productive effect of investments (number of units of investment necessary to increase the national revenue 1 unit) and

$$m \cdot A = d R$$

The relation between the level of consumption (C) and the growth of national revenue (d R) is first translated by the equation

$$\frac{\Delta R}{c} = \frac{m}{e}$$, where e depends on the choice made between today's consumption and tomorrow's increase.

The choice (1) therefore must be made in terms of the coefficient c, choice (2), in terms of coefficient m, choices (3) (4) (5) (6), in terms of the coefficient e.

In the case of exporting consumer goods, the withdrawal from the market of products A necessitates its substitution by product B. The introduction of B in its turn increases the purchase power of value B. q where q is the multiplier of the returns. Coefficient q depends on the participation of salaries (a), on the accumulation (b) and amortisation (c) [amortissement] in the value of the products which are found on the market, or

$$q = \frac{1}{1 - (a + b + c)}$$

The value of the product on the market in substitution for A is :

$$B_q = B + B (q - 1)$$

where B = pure substitute (in place of A)

B (q - 1) = additional product (in terms of the new structure of demand)

If, in order to introduce the substitution product B on the market it is necessary to pay for S_B in foreign exchange, the returns

Resulting from exporting product A must be compared not only to expenses S_ε but to the volume of expenses in foreign currency:

$S_\varepsilon + S_\varepsilon (q-1)$.

Another order of comparison concerns the influence of imports on the national revenue.

The following symbols are submitted:

Q= Imports

R= National Revenue

q= Participation in imports per unit in the national revenue

$Q = q_0 R$

But on the other hand

R= C plus S = $(1-s+\beta) R + q_0 R \; sR$

Where C= consumption

S= accumulation (savings)

s= coefficient of savings

$Q = qR = \gamma (1-s) R + \beta sR$

$q = (1-s) + \beta_0 = S (\beta - \gamma) + \gamma$

where γ = coefficient of participation of imports in consumption

β = coefficient of participation of imports in accumulation (savings)

From the choices which can be carried out in an open system of economy, choices (7) and (8), the following equations stand out:

MS = Y.... (condition for stabilizing the balance of payment)

M= qW..... (condition for balancing the financial program)

$Y = q_0 WS$

Where:

Value of saved raw materials:

in the price of the domestic market..... W (zlotys)

in the price on the world market..... Y (zoltys)

The total effect of saved raw materials (effect made on wages)...

..... qW(zlotys)

Increase of the quantity of merchandise necessary for absorbing the salarial effect ..... M (zlotys)

Cost in foreign currency of the increase of quantity of merchandise by one zloty (input of foreign currency for one zloty of the mass of new merchandise) ..... S (dollars)

Total cost in foreign currency of the increase in the mass of merchandise on the market ..... MS (dollars)

It follows that the course of trading raw materials ($\frac{W}{Y}$) can be represented by the equation $\frac{W}{Y} = \frac{1}{q.s}$

where q = multiplier, reflects the total effects of saving raw materials on wages.

The increase in the mass of products placed on the market is calculated in the retail price; it can also be represented by the sum of prices for raw materials used in amortization and accumulation.

The prices of raw materials in foreign currency (MS dollars) can be recalculated in national monentary units (zlotys for Poland).

$$MS. \frac{1}{qs} = \frac{M}{q}$$

In view of the fact that

a= participation of wages in the value of merchandise products

b = participation in amortization

c = participation in accumulation

$$M = a.M + \frac{1}{q}M + b.M + c.M$$

$$a + b + c + \frac{1}{q} = 1$$

$$q = \frac{1}{1 - (a+b+c)}$$

This proves the necessity of introducing a multiplier in having recourse to the substitution of exported products.

So it is clear that:

- the saving of raw materials (in substitution for imported materials) leads to the augmentation of personal income for members of the population;

- this additional income evokes the necessity of assuring the satisfaction of the extra demand through the increase of production;

- the increase of production induces the multiplier effect in the populations income.

VII. Polish foreign trade and price structure

It has been mentioned in the introductory chapter, the system of prices serves in an planned economy as a tool for state economic policy without being considered from the point of the world market, and thus from the demands of foreign trade.

This disparity eliminated the usefulness of prices as far as measuring devices for the effectiveness of trading abroad, and all the

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more so since domestic market prices, while fluctuating around nominal costs of production, did not reflect real production costs since they could not tie in with the prices of imported raw materials.

The tables on the next pages reflect the structure of prices in five European countries. Sometimes curious disparities in the structure of prices exist in almost all of the products.

Such a situation poses certain number of question for us. It is certain decision that a given system of prices reflects the given state of the economic situation, while the situation itself remains the function of the balances and imbalances which are the synthesis of the economy. The following imbalances have been characterized for the economy of socialist countries:

1. Imbalance between the general direction of the development of productive forces in the socialist countries (direction aiming toward the development of heavy industry) and the needs resulting from accelerated raising of the standards of living (reflected by the almost constant deficit of consumer goods).

2. Imbalance between the technical level (raised coefficients of technical efficiency) and economic level (volume and homogeneity of production) of certain socialist countries capable of producing complicated machines and the low technical and economic level in the other countries. This imbalance is then reproduced in the structure of trade between developed and less developed countries inside the socialist market.

[Refer to pages 104 and 105]

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3. Imbalance between the goal of stepping up productivity thanks to mass production and the limits to absorbing products made this way imposed by the domestic markets.

4. Imbalance between the necessity of accelerating technical progress and the unorganized scattering of efforts in this task.

5. Imbalance between the needs for an accelerated development of production in all countries and the sparse natural resources in most of these countries.

As established by the governments, the price system did not offer a sufficiently strong stimulus to raise all mortages [sic] at the source of the imbalances. [Bottom of p. 105]

However there are three possibilities in this respect:

- let prices be based upon production costs (in a more specific manner than now)

- base prices on world prices

- establish a separate system prices for the inside socialist market

System of prices based on world prices

The exchanges of socialist countries are carried out on a basis of world prices; the differential rents which fall to the countries who take advantage of states of imbalance are not done away with. The introduction of the same structure of world prices within the national economy is liable to bend the economic structures in the desirable direction from the stand-point of international trade, i.e. mainly the

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saving of raw materials which are taking on the world market. Economy in the expenses of labor will be hampered by the system of world prices which reflects neither the structure of production nor the degree of technique suitable in this country.

In these countries fixing price structures based on production costs is capable of guiding the economic structures toward economy in labor expenses (the economy of materials and raw materials will be hindered by the irrationality of domestic prices which do not reflect the material balances of the world market).

Hence one can conclude that the ideal domestic system of prices will include elements from the two possible systems instigating at the same time the economy of raw materials and the economy of labor.

The differences between world prices and domestic prices must be justified by the scarcity of raw materials, by the difficulties encountered in purchases aboard and by the difficulties in the balance of payments.

The main problem consists in being able to get out of a vicious circle - for example in the case where prices are bound to the world prices of raw materials.

Raw materials A B

World prices for raw materials P_1 P_2

Production costs C_1 C_2

and the counter currents:

$P_1 > P_2$

$C_1 < C_2$

If one applies the principal of substitition based on rentability and advantage over the difference of prices, more of products B will be produced (for which the raw materials are bought at a lesser cost P_2) and labor waste will take place. The economic affect of such a structure and such a decision for substitution will be:

Economy of currency P_1-P_2

Labor waste C_1-C_2

To these uncertainties, which up to now remain the rule, are juxtapposed the basic distinctions one wants to introduce between the prices of the means of production (prices on the domestic and planned national circuit) and the prices for consumer goods (prices on the free market).

The possibility for the existance of four price circuits is suggested:

Planned circuit

Free market circuit

Foreign trade circuit linked to the world market

Labor circuit linked to the state of technology

Each circuit corresponds to a different goal: the planned circuit to the objective of industralizing the country, the free market circuit to the goal of consumption, made up from the structure of supply and demand of the population, the foreign trade circuit with the goal of economy in raw materials and the labor circuit with goal of technical progress (economy of labor).

It is essential that the four circuits do not interfere (with each other). The interception points are capable of creating a conflict of goals, all the more so since it is perfectly permissable to gauge the polarization of goals on the one hand (the objective of industralization approaches the objects we of technical progress; the aim of consumption that of saving raw materials), and their estrangement on the other hand (the breach widening between the pairs of goals).

Prices within the COMECON market

Prices fixed on products subject to exchanges between socialist countries are in principale based on the world prices. The method of fixing these prices has undergone two main changes.

- The first in 1950 at the time of the Korean boom. The prices then were blocked and this state of affairs lasted until 1957. In 1957 in the aftermath of great political and economic upheavals, the countries with em

a planned economy again allined their price system on the world prices.

Trade prices for a products subject to exchanges between these countries thus are now fixed for the duration of one year at least. This practice is likely to undergo some new changes and with the delay of the valadity of prices being extended, as A. Mikoyan said (Pravda, 12 March 1958), "world prices remain a basis of fixation for the prices fixed on the socialist market but they are fixed as constants for long periods and the influences exerted by speculation and by the accompanying brutal fluxations can be inferred from them." This system of formation for prices on the socialist market is being perfected and adopted to the goals of a planned economy in the socialist countries. Nevertheless it appears that the system of prices in the COMECON were created, it would be preceeded by the creation of a common currency on the market or by complete convertability. But this cannot be established before the technical level of production is appreciably the same for all the countries and before the liaisons resulting from specialization become closer. [See p. 109 for table]

The equalization of technical levels is at the basis of exchanges admitting of more reciprocity and prevents speculative movements between the countries (speculation becomes easier and easier thanks to international tourism in the bloc); it likewise checks recourse to imports through wasting of labor (problem treated above). The liaisons rising out of intra-sectorial specalization can be founded effectively only on a level of know-how common to a certain number of countries

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(the leveling of the technological plans is most easily accomplished in the mechanical and chemical industries where a very efficient standardization can be developed. For these reasons specialization is beginning precisely in these two branches of the national economy). Such specialization bears a convertability of currency and, in the end, a universal monentary unit for all of the countries. But common currency can almost automatically create a system of prices detached from the world market within the countries' market.

- Members of the COMECON. Another solution would involve action from top to bottom (i.e. by political decisions detached from economic realities) which is always susceptible to creating disturbances of an economic nature. It is nevertheless possible for the moment to create a system of technical coefficients (based on the size of the group to which belongs the product subject to exchanges and based on the comparative costs of the exporter country) with the view to stimulating the importing of this product from the country from which the specialization in manufacturing the product is anticipated. These coefficients can modify the base world prices and must be based on the prespective principle, i.e. must relate to the specialization at the ~~finial~~ final moment (at the end of a long period) and not at the beginnings of specialization.

D Foreign Exchange Rates

There are three possibilities for establishing a ~~numercial~~ numerical relation between foreign trade prices and domestic prices in countries with a planned economy, ~~mainly~~ namely: by the average prices, by the index

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of returns and by the maximum price. Each one of these relations can play its own economic role.

The Average Price

The average price price of exports ($K^{(e)}$) can be established as being the ratio between the value of all exports at the domestic market price and the value of the same exports calculated according to the prices on the world markets (in foreign currency)

$$K^{(e)} = \frac{\sum_{j=1}^{n} q_j p_j^{(k)}}{\sum_{j=1}^{n} q_j p_j^{(s)}}$$

where p_j=market price

q_j=quantity exported

(k)= domestic market

(s)=world market

The average price of exports rose in terms of the increase in volume of exports. The maximization of economic advantages developed to the point where the value of exports at the price of the domestic markets $F^{(e)} = \sum_{1}^{a} q_j p_j^{(k)}$ is lowest (average price $K^{(e)}$ is lowest at that point).

For imports, the rule is inverted. The average price of imports diminishes as a function of the increase of exports and the maximization of advantages coming from importing occurs when $F^{(i)} = \sum Q_1 p_1^{(k)}$

Where Q_1 = imported quantities (1=1,2. . . . n)

and when $K^{(i)}$, the average price reached its highest point. The condi-

tions were in advantageous development of foreign trade have come together when $F^{(i)} > F^{(e)}$, i.e. when the average price of imports is higher than the average of exports: $K^{(i)} > K^{(e)}$

If one applies the notions used previously for the total quantity, it is possible to establish the total advantage for all commercial trade with other countries.

The total advantage is a function of two factors: the formation of the average price of exports and of imports and the formation of the volume of foreign trade.

$$R = V^{(i)} K^{(i)} - V^{(e)} K^{(e)}; \quad R = V (K^{(i)} - K^{(e)})$$

where $V^{(i)}$ = value of imports (at world prices)

$V^{(e)}$ = value of exports (at world prices)

Setting this equation into dynamics, the formula for maximumization of foreign trade in terms of its growth can be obtained:

$$R + \Delta R = (K^{(i)} - K^{(e)}) V + (K^{(i)} - K^{(e)}) \Delta V$$

$$\Delta R > 0 \quad \text{when} \quad K^{(i)} > K^{(e)}$$

Thus the rentability of foreign increase when the marginal price of imports is greater than the marginal price of exports and it reaches its maximum at the intersection point of the two prices.

[Refer to page 113]

Net index of returns in currency

The net index in returns in foreign trade will be ruled by another order of confederations, mainly it will put into calculations a clear distinction between the components of value of the exchanged products; the raw

materials and wages.

Such an index will take the form $\frac{K-K_m}{D-D_m} = \frac{K_t}{D_m}$

where K=total production costs of the product

K_m=cost of raw materials used in production which otherwise could be subject to export.

K_t=price of transportation of raw materials

D_m=value of raw materials, accessed at world market prices

D_m=revenue (net) of foreign currency

D=revenue (total) of foreign currency

Once the socialist country admits that foreign trade is capable of playing the role of stimulant in the process of growth, the problem raised is to know to what extent it contributes to the growth of funds of "accumulation" (of saving, to speak Keynes' language) after which the increased reproduction can be effected (to speak Marxist language).

The index for accumulation thus is presented in the form of a ratio between net returns of currency, lowered from the value of the goods and services consumed by the population, accessed at prices of the world market, and the total revenue of foreign currency. This index then reflects the ratio between foreign currency returns and expenses made, mainly for remunerating the labor employed: $A=\frac{D_n}{D} \cdot \frac{P-\frac{K_T}{D_n}}{P} \cdot 100$

P represents the ratio between the retail prices on the domestic market (for products and services bought by the population) and the world

prices.

In the conditions when a the ratio $\frac{K_T}{D_n} < P$. the

expenses of the country are less than the net returns; in the inverse situation of order $\frac{K_t}{D_n} > L$ they are larger.

The surplus of P in relation to expenses $\frac{K_t}{D_n}$ can then be considered as accumulation and it reflects the initial share of foreign trade in the process of the country's growth.

Maximum prices.

The middle or average price gives an idea of the existance of a maximum price

(or limited price) beyond which commercial exchanges will not be desirable. The net index of returns in foreign currency furnishes the method by which it is possible to establish precisely the [world?] market price for each product taken separately. A method remains to be found by which the limited price may be established. The range of possible operations lie then between the net index of revenue in foreign currency and the amount of the limited price.

Such a course can take the form:

$$K_{nm} = \frac{(1-a) \cdot 100}{S}$$

where a = ratio between the increase of salaries paid out for production of consumer goods and the increase in volume of the consumer goods derived due to these expenses.

s = raw materials (in dollars) contained in each unit of value (taken for example as 100 zlotys) of the growth in volume of goods.

The coefficient "a" can thus be obtained in a simplified form by the following calculation:

$$a = \frac{F}{M} = \frac{\text{wage funds in the branch producing consumer goods}}{\text{total value of merchandise on the market in zlotys}}$$

The coefficient "s" can be obtained in the following manner:

$$S = \frac{S}{M} \cdot 100 = \frac{\text{in the total value of merchandise}}{\text{total value of merchandise on the market in zlotys}}$$

To establish the exact amount of the limited price for Poland, it suffices to find numerical data.

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It will be done for the consecutive years of 1957 and 1958.

$$a_{57} = \frac{45.4 \text{ billion zlotys}}{191.6 \text{ billion zlotys}} = 0.237$$

$$a_{58} = \frac{49.4 \text{ billion zlotys}}{208.6 \text{ billion zlotys}} = 0.237$$

$$s_{57} = \frac{1.98 \text{ billion dollars}}{191.6 \text{ billion zlotys}} \cdot 100 = 1.04 \ \frac{\$}{100} \text{ zlotys}$$

$$s_{58} = \frac{1.85 \text{ billion dollars}}{208.6 \text{ billion zlotys}} \cdot 100 = 0.89 \ \frac{\$}{100} \text{ zlotys}$$

(in view of the fact that 20% of the raw material escape our calculations, we are prompted to raise the coefficient "s" by 20%

Thus, we have: $s_{57} = 1.30 \ \frac{\$}{100 \text{ zlotys}}$

$s_{58} = 1.11 \ \frac{\$}{100 \text{ zlotys}}$

The limited price for these years is

$$K_{\text{lim } 57} = \frac{(1 - 0.237) \cdot 100}{1.30} = 59 \ \frac{\text{zlotys}}{1 \text{ dollar}}$$

$$K_{\text{lim}_{58}} = \frac{(1 - 0.237 \cdot 100}{1.11} = 69 \ \frac{\text{zlotys}}{1 \text{ dollar}}$$

The abrupt change of the limited prices between 1957 and 1958 is easily explained by the lowering of raw material prices on the world market and the raising of retail prices on the domestic market in Poland.

The limited price plays a double role in the calculations pertaining to foreign trade:

- It fixes the price limits of raw materials in the country in relation to their prices on the world market;

- It fixes the limits on the transformation costs in exported production. In the case where the remuneration of labor spent for each dollar of returns exceeds the amount of the limited price, carrying out such exports is contrary to the financial interests of the country (the salaries at that time will exercise on imports a constraint, the extent of which would exceed the amount of returns.)

As regards transformation costs in Polish exported production in 1959, an average is established for the large groups of products as follows:

Group I:	Machines, equipment goods, means of transportation	28 zlotys / 1 dollar
Group II:	Combustibles, raw materials, industrial materials	23 zlotys / 1 dollar
Group III:	Foodstuffs and agricultural products	64 zlotys / 1 dollar
Group IV:	Consumer products of industrial origin	69 zlotys / 1 dollar
	Average of the groups:	35 zlotys / 1 dollar

In the fourth group of products, exports are found just below the ceiling established by the limited price.

VIII. Marketability of trade

The general problem here is to be able to justify the following counter currents:

- the growth of production is accompanied by a reduction of production costs;

- the increase of exports is accompanied by a lessening of their effectiveness; marketability;

Taken as a separate effect, these conclusions seem justified. The growth of production acts mainly on the reduction of fixed costs (general expenses etc.) leading

~~Leading~~ to their division over a larger number of units of production, and in this way, lowering the cost per unit. The ~~the~~ increase of exports leads to exporting products with less and less marketability (it is customary to begin by exporting the most marketable goods and then follow a line of decreasing marketability).

Nevertheless there remains one question which is difficult to answer.

- Will the costs be raised or lowered if one continues to increase exports through increasing production? Are the economic effects going to follow the diagonal of the parallelogram constructed on the two counter currents just explained?

In order to be able to study the second effect separately, the following diagram has been set up: [Please refer to page 118]

On the X axis: the value of exports or imports is measured ...

On the Y axis for exports: costs of exported production in zlotys spent to obtain one dollar in return for imports; quantity of zlotys obtained by

for the sale of merchandise imported for one dollar;

Curve E: Function of the cost of one dollar (in exports), dependent on the volume of exports;

Curve I: Function of returns for one dollar of imports, dependent on the volume of imports.

Curve I can take different forms in terms of the situation on the domestic market. For example, in the case of market saturation it will take the form I_1; in the case of a not completely satisfied demand, it will take the form I_2, and even if the State wanted to resort to clearing the market by the policy of high prices for imported articles, it could take the form I_3.

What might be the consequences of each one of these three forms of Curve I?

Suppose the value of exports is equal to the value of imports and equals OP. To these values correspond the marginal indices of exports (K_1) and imports (K_2).

With the rise in volume of exchanges, the index for exports is going to increase (which is not equivalent to being "better") by moving to the right on E. The simultaneous increase of imports will move the import index the length of one of the I curves in terms of the domestic situation of the country (it is going to lower by moving on I_1 curve, it is going to increase if following I_3 curve and will remain unchanged on I_2 curve).

The intersection point of curve E with one of the variables of

curve I will fix OA = the volume of exports and imports which will produce an equalizing of the indices for exports and imports at the level of K_{rl}. The intersection point depends nevertheless on the form of curve I: with the curve descending, the point will be placed nearest point O, with the curve parallel to the "X's", more to the right with the curve falling, it will be moved very close to the right. The increase in volume of exchanges beyond the intersection point of curves E and I (i.e., beyond the point A_1, A_2 and A_3 in terms of the form of curve I) will produce disastrous effects for the national economy. Each additional unit of return (in foreign currency) for exports will entail higher costs (in national currency) than returns (in national currency beyond on the domestic market) coming from the sale of imported products and paid for with the same unit of foreign currency.

The main difference introduced here in relation to the preceding considerations is produced by State policy. The State in the planned economy has full power to fix curve I in terms of the situation on the market but also in terms of its own goals, even if provisional. Thus, it will be able, up to a certain point beyond which serious imbalances are apt to be provoked (especially stocking of imported products, in the case of choosing curve I_3 or the black market for imported products, in the case of choosing curve I_1), to decide on the marketability of foreign exchanges by a rational setting of prices for imported products on the domestic market.

IX. Problems in the Balance of Payments

The problem of the balance of payments for a country with a planned economy is difficult to resolve theoretically and to bring out statistically, in view of the fact that:

- If the theory of foreign trade for the country with a planned economy is still non-existent, it is nevertheless practiced. Apparently there is a contradiction in logic which is not without reminding of M. Jourdain. The theory of foreign trade is practiced in the East since the practice of foreign exchanges is a fact. The theory of the balance of payments is not practiced in the East, since the practice of the balance of payments is unknown. The balance of payments is considered as having an exclusively statistical but not economic content. This attitude goes back to the time when the independent and even driving role which foreign trade could have played was denied. Inasmuch as the balance of payments was considered as accessory to foreign trade and foreign trade has a variable related strictly to the process of industrialization and determined by it, the balance of payments concerned the East only within the framework of bookkeeping considerations.
- The balance of payments is not published in the East, which is even admitted officially in the Economic Dictionary (edited in Warsaw, Poland; 1957, see page). This situation has been evolving slowly these last years with the appearance of three new economic elements:
- The bilateral system of payments in foreign trade, practiced within the framework of bilateral agreements

and concluded by countries with a planned economy, begins to be overtaken by the demands of modern economy;

- passage from the forced industrialization stage to that of spontaneous industrialization has not been accompanied by qualitative changes in foreign trade, which has created a financial "hole" in payments. This "hole" had to be filled in by the aid of funds coming from outside and not integrated in the foreign exchanges (the funds previously granted were equalizing funds maintaining the balance in the bilateralism of exchanges and surrounded by these bilateral accord agreements);

- such as the agreement gained by Poland on payment for the transportation of merchandise which is carried out by transversal routes (the merchandise transported by railroad between USSR and East Germany and Czechoslovakia) and longitudinal routes (the merchandise exported or imported by Czechoslovakia by the Polish port of Szczecin) across the nation. These elements are certainly capable of furnishing the balance of payments with an economic content in the same way as the new stage of economic development furnished economic content to foreign trade. A first step has been made in the establishment of an efficient system of international payments. A treaty of multiple clearing was concluded between the member countries of the COMECON on 22 June 1957. The system established provides for a simple compensation of the settlements in balances of payment between the member countries to be carried out in the following manner:

[Refer to page 122]

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The principal object of this treaty is to make the balances mutually compensatory without resorting to heavy outflows of currency. Nevertheless, while remaining multilateral, the compensation is not automatic; said otherwise, it can take place only in the setting of an agreement expressed by the two parties. This method of proceeding thus only partially exhausts the problem of payments between the member countries of the COMECON but it does not solve any of either the problem concerning more general multilateralism or the problem of payments between the two monetary blocs (European Union of Payments - countries of the CONECON) or the three geopolitical blocs (advanced capitalist countries - underdeveloped countries - countries with a planned economy).

The system of compensation of payments between the two monetary blocs can be set up in the following fashion:

- First possibility: multiple compensation of settlements between all countries belonging to the two blocs.

[Please see page 123]

The creation of such a system demands the setting up of precise principles of periodic compensation of settlements which would result in bilateral relations between countries with a certain limit as a starting point: the surpluses or deficits are the subject of credits, above that limit they must be paid for either in gold or in hard currency, etc.

Second possibility : The creation of the union which would be responsible for settling the balances which result from exchanges between Western European countries and Eastern European countries, i.e., with the

exclusion of bilateral settlements in each zone. [See top of p. 124]

In adopting a similar system, the countries must have the possibility of settling surpluses or deficits which come exclusively from trade with countries of another monetary or geopolitical zone. The surplus balances originating from trade in each zone cannot be included in it due to their reducing the elasticity of such a system of settlements.

3rd Possibility:

From the periodic settlement of the total balance of payments between the two zones a multilateral compensation must result arising from trade with the other zone and the mutual presentation of net balances to be paid for.

[Refer to bottom of p. 124]

It is certain that the establishment of an effective system for balancing payments has the potential to give back the active role it used to possess in trade.

- Weaknesses in the Polish balance of payments

The balance of payments in Poland since 1956 has been found exposed to the constant danger of very serious imbalances; the weak points in the structure of the Polish balance of payments at the same time as the dangers which threaten it can be arranged in 3 main groups:

- Weaknesses and structural dangers arising from an imbalance within the group of food stuffs and agricultural products;
- Weakness and accompanying dangers arising from the prices of raw materials on the World market:
- Weaknesses and dangers in orientation arising from an excessive con-

centration of exports in certain products dispatched in certain directions.

a. Effects of structural imbalances on the balance of payments

The most perceptible structural imbalances affect especially the group of food stuffs and agricultural products. In principle, the rising demand for cereal imports in Poland (the causes have been treated above already) must be balanced by the expanding export of meat. But as astonishing as it may seem, such a balance existed at the time of forced industrialization:

1950 - 1955

Grain	Meat
Average imports per year:	Average exports per year:
665,500 tons	77,200 tons
Annual worth: $50,300,000	Annual worth: $54,000,000

but ceased to exist in the next period:

1956 - 1958

Grain	Meat
Average imports per year:	Average exports per year:
1,390,000 tons	97,300 tons
Annual worth: $91,500,000	Annual worth: $70,000,000

The balance of the total balance in this group changed from a state of high surpluses to a state of deficits: Total balance of exchanges in food stuffs and agricultural products

1950 - 1955

Imports	Exports	Balance
$560,000,000	$890,000,000	+$330,000,000

1956 - 1958

Imports	Exports	Balance
$500,000,000	$420,000,000	- $80,000,000

b. Effect of Imbalances Contingent on the Balance of Payments

World circumstances which effected a reduction in raw materials beginning in 1957 had strong repercussions on Polish trade. It is useful to recall the extent of this drop-off. Of the 8 main export products in Polish raw materials, the price drop affected 5 t:

coal (the price of American coal dropped 43.5% in 1957)

bacon (the price of Danish bacon dropped a few points)

laminated products (the price dropped 25%)

zinc (the price dropped 40%)

timber, eggs (the price did not drop)

coke

sugar (dropped)

In short the summary index of prices for the 8 exported products underwent the following variations:

1953 - 100

1956 - 152

1957 - 106

Stated otherwise, between 1956 and 1957, the index dropped 30%, which implies a loss in export returns on the order of $230-235 million - the loss of which through the reduction of coal prices was $200 million. The price of coal has again dropped in 1958 eight dollars per ton as compared to 1957 and in spite of the increased export of 2,287,000 tons of

coal in 1958, the returns dropped in 1958 ₱18.5 million as compared to 1957, or $220,000,000 as compared to 1956.

The drop-off in imported products has not been as considerable and could not balance the losses in exports.

For the twelve main import products of Polish raw materials, the situation was as follows:

Cotton - prices rose 5%

Rice, Cocoa beans, Tobacco - rise in prices

Rubber - drop: July 1957 - $701 per ton; December 1957 - $640 per ton

Nonferrous metal, Leather, Coffee - Trend toward price stability

Wool - Drop of 20%

Iron ore - Drop of a few points

Petroleum - The prices dropped slightly

Wheat - The prices dropped slightly

The summary index of prices for the 12 imported products underwent the following variations:

1953 - 100

1956 - 105

1957 - 99.1

Stated otherwise, between 1956 and 1957, the index dropped 5.6% which implies a profit of $ 25 - 35 million. To this, the larger profit on the lowering of maritime freight costs on the order of $45 million must be added. In short, in 1957 (as compared to 1956) the prospective loss rose to $220 million, the prospective profit to only $70 - 80 million. The result of this potential imbalance showed a very considerable net loss of $150 million.

- c. Possible effects of the "directional" or "orientational" imbalances on the balance of payments.

One can anticipate that the trade balance of Poland with the countries having a planned economy will certainly show a deficit in the years 1961 - 1965. Nevertheless, the deficit trade balance ought to be balanced by transfers due mainly to railroad and maritime transit which is carried out on Polish territory. The "directional imbalances could be more dangerous in Polish commerce with the countries of Western Europe. The very high concentration of certain export products exposes the balance of payments to very serious dangers in case of a dropping off in the value of exchanges (or in "summary prices"). Thus, for example, in the case of a 5% price drop, the repercussion on coal (which makes up 25% of the exports to Western Europe) will bring about a 1.25% lowering of the total revenue; on bacon a drop of .32 %, etc.

[Refer to page 129] When exports and imports are balanced, a lowering of prices should not bring about great difficulties in the balance of payments. Nevertheless in the case of a deficit balance, each lowering of engenders a considerable deterioration. Thus, for example, a 5% reduction

of export revenue in the condition of a deficit balance (1958) equal to 16.5% of the value of exports brings about a 33.3% increase in the deficit.

The theme can be advanced but the balance of payments is in danger when concentration surpasses 2% of the exchanges (this is the case where about 55% of the exchanges with Western Europe) and for the exchanges with the countries whose "directional" concentration surpasses 5% (about 40% of the exchanges with Western Europe).

The degree of concentration is presented in the graph below:

/Refer to graph on 130/

If one considers the disastrous effect of the price drop in exports on the Polish balance of payments, one must also consider the effect which can be exerted by the rise of prices for products imported by Poland from countries outside of the COMECON zone.

The table which follows /see page 131/ is based on the same principle as above.

The seven products in the table represent 34.6% of the import total. So in this way when a 20% price rise is produced, the expenses hastily figured out rise 6.92% (the same volume) causing the deficit in the balance of payments to increase.

Obviously one can reverse the analysis and study the effects of price rises in exports and price drops in imports on the Polish balance of payments.

The trend is becoming oriented in another direction, nevertheless (which is proved by the statement of profits and losses above and the analysis of the dangers and "directional" weaknesses developed in the

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line of price trends for exported and imported raw materials by Poland.

The table would be incomplete if the considerations on Polish foreign trade and the balance of payments covered only economically discernable ~~desertable~~ elements. A whole sphere of human relations which is beyond our field of analysis can be included and in it would be namely the following problems:

- absence of a clear concept of the role of foreign trade in the planned economy,
- absence of a precise method of planning foreign trade and at the same time a method based on the principle of economic rationality,
- absence of experienced and trained business leaders in exports and imports,
- weak penetration of ideas bearing on foreign trade beyond those of a small group of technicians in foreign trade who stand out between the sphere of international trade and that of the national economy.

Such a situation appreciably hinders the development of foreign trade. There are two aspects of this particularly:

1 - the absence of concept and method contribute to widening the gap between the reality of foreign trade and the economic necessity which rationally stands out;

2 - the absence of experienced leaders and of the penetration of ideas in men's mind contributes to widening the gap between the reality of foreign trade and the possibilities which are offered on the world market.

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If the "human" factor played unfavorably in the process of Polish foreign trade restructure, the "time" factor intervened in ~~the half~~ behalf of the structure. An aphorism saying that time is a means invented to prevent happenings occuring all at the same time has rarely been truer than in the case of Polish foreign trade which has at least three major facts to be noted in its favor, facts which if they had occured at another moment could certainly have played greatly to a disadvantage:

1. That the price drop in raw materials exported by Poland occurred at the moment when they had ceased to play the fundamental role they held in the Polish balance of payments, i.e. in the beginning of the intrasectorial specialization and in the beginning of the international exchanges resulting from it.

2. That the acute imbalance in the Polish balance of payments occurred at the moment:

a) of relaxation in world politics and of hope placed in the west for liberal prospects and for independence in Polish foreign and domestic policy due to Gomulka's election to the post of First Secretary of the Party (thus the granting of American aid).

b) at the time of the danger of disintegration of unity in the Communist Bloc threatened by the U.S.S.R. after Gomulka's arrival to power in Poland and after the outbreak of the Hungarian revolution (which caused the payment by the U.S.S.R. of transit expenses across Poland due over a long period as well as the reimbursement of the ~~mast~~ amassed

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differences in the price of coal exported by Poland to the U.S.S.R. coming from the disparity between the world price of coal and the price paid by the U.S.S.R.)

3. That the decisions of the COMECON with regard to the introduction of intense intrasectioral specialization between the member countries were made after the basis of Polish industrialization had been established. These decisions, if they had been made at an earlier date, would have been likely to solidify the structure of Polish foreign commerce during its stage of intersectioral specialization limited to one field (as is perhaps the case in Rumania, Bulgaria, Albania).

This reasoning is developed not to enrich the economic history of Polish foreign trade but for a completely different goal. The present study show the evolution of foreign trade from its ~~storage~~ stage of light development to its stage of advanced economic development and as such it can serve as useful information for countries on the way to becomming developed. These countries must realize that the "time" factor does not always work to their advantage as was the case for Polish foreign trade; nevertheless means of foreseeing / and avoiding unfavorable economic events exist. The lowering in prices of raw materials, often inevitable, perhaps can be counterbalanced by the development of the transformation industry; economic aid coming from both sides is possible only in certain political situations which are neither frequent nor long-lived, and finally adherence to economic

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unions can sometimes be premature.

Credits and Aid From Abroad.

The Polish balance of payments, as could be expected, has suffered serious damage for a few years. The deficit in the trade balance was:

/See middle of page 134/

In order to remedy such a situation it was judged absolutely essential to call for foreign credits. The credits which have been granted Poland can be differentiated as to their economic character in the following manner:

Credits of the "Economic aid" sort - these are mainly American credits; they have been granted Poland for a period lasting 25 to 40 years in three successive issues:

I. Issue - agreement on 7 June 1957 (supplemented on 14 August 1957) for the sum of $95 million.

II. Issue - agreement on 15 February 1958 for the sum of $98 million

III. Issue - agreement on 10 June 1959 (supplemented on 10 November 1959 and 11 February 1960) for the sum of $103 million.

Total $296.3 million

After receiving these credits Poland was able to buy from the United States agricultural products and raw materials for the sum of [illegible] million (wheat, cotton, oleaginous substances, grains) and for the west - machines for the extracting and sheet metal industries, skin industries, etc.

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- Credits of the economic "advancement of trade" kind.

Such are the credits granted Poland either by installments on future Polish deliveries or simply by credited deliveries.

- Credits of the "participation in common investments" kind

They present themselves in the form of credits from the member countries of the COMECLN granted Poland for participation in Polish investment projects. Above all it is a question of credits granted or to be granted by Czechoslovakia and by East Germany. Thus for example in May 1958 Czechoslovakia granted Poland a credit of $62.5 million as part of its participation in the development of coal mining production. Similar credit was to be alotted for the development of the sulpher industry, etc. This combination of three kinds of credit granted to Poland permitted it temporarily to fill in the gaps of its balance of payments. Inside the country the effects of foreign credit were such that the national revenue distributed to the various groups taking part surpassed the national revenue produced from the market. (x)

(x)

Statistical treatment of foreign trade in the national accounting system

In all the countries with a planned economy, the activities of people whose employment is connected with foreign trade -- just as all those whose employment is connected with trade domestic -- are totaled

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in production. But the statistical treatment of the balance of payments itself (imports and exports of merchandise and "productive" services presents an intricate problem which depends mainly on the special characteristics of price structures in these countries and absence of a single rate of change effectively relating domestic prices to foreign prices. ((In Czechoslovakia and Poland, at least, the productive services are in principle included in the balance of invisible transactions and it seems that, for reasons of a practical nature, certain "non-productive" services (transportation of travelers, for example)) can also be included in it.) Now, all countries have not solved this problem in the same way. In all the countries of Eastern Europe, except East Germany, the practice consists of determining for the objectives of national bookkeeping the surplus of exports or imports, first in the price of foreign currency.

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In order to convert into domestic prices the marketable surpluso of exports or imports established in foreign currency, the difference between the domestic value and the value in foreign currency of the total exports (or imports) is used and the surplus thus accessed is considered as giving the proper amount of the difference betweeen the "[illegible] national product [" revenu national produit"] and the national available revenue in the country (called " available revenue", "distributed revenue" or "finally realized revenue"). (In other terms, this difference corresponds -- if one does not take due account of the differences in defination of the headings -- in the external formation of capital or in the net external disinvestment in the "western" national system of accounting.)"

However, for the total domestic expense in domestic prices (consumption by private individuals and by groups and accumulation) to be identical to the domestic products (or ~~gross national product~~ national income produced) reduced by the surplus of exports (or increased by the surplus of imports), before calculating the total indicating the "~~gross national product~~ national income produced", the sum of net products in the various sectors of domestic production must be corrected so as take into consideration the profit or loss of resources in domestic prices which results from a precise balance of exports and imports at foreign currency prices (according to the marketable value of whichever of these two amounts -- profit or loss - is the lower). This corrective of prices is called "account of the price differences in foreign trade" in the Polish bookkeeping system.

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The numerical example below will offer an understanding of how this corrective is effectively calculated. [See top of page 135 b.]

In this case there is no surplus or deficit in foreign trade in foreign currency prices; consequently there will be no differences in the account between the "gross national profit" and the "available national revenue". The difference (75) between the value of imports (225) and that of exports (150) in domestic prices is treated in the total as a profit for the economy or for the national profit - resulting from the difference between the ratios of domestic and foreign prices for exports and imports.

In the calculation of the domestic product, 75 will figure as a distinct entry. Most often, of course, foreign trade in foreign currency prices does not balance;

[Refer to the bottom of 135b and page 135 c]

In each of the above cases, the third line indicates the ratio between domestic policies and the prices of foreign trade for exports as well as imports—the ratio which serves as a conversion coefficient. If one considers the level at which marketable imports and marketable exports balance (each being expressed in foreign trade prices), one affirms that there is a "loss" of 75 units in exports and a "profit" of 150 units on imports due to the differences in price so that the net profit - which must be included in the gross national product - is 75. A marketable surplus of exports with a foreign trade price of 25 remains which, converted into domestic prices by means of the coefficient above, becomes 50 in the domestic price; this difference is

then carried in the national accounts as a surplus of exports of this amount. Thus, the marketable surplus of imports in domestic prices, which is 25, is split up, becoming on the one hand 75 in the "account of price differences" - a figure which is entered in the account as adding to the gross product - and on the other hand 50 which is the surplus of exports to deduct from this title to arrive at the "distributed revenue" or available revenue in the country. Moreover, the fact that the "account of price differences" does not allow eliminating the contradictions which exist in the price structures of these countries. At the very most, by doing this one succeeds in making, in a certain sense, the total value of foreign trade harmonize with the internal structure of prices. The "profit" or the "loss" in this account can be entirely fictitious according to the ratios of domestic prices corresponding more or less to the relative actual costs. In addition, the profit or loss appearing as a result of foreign trade is a function of its structure since the import of merchandise subjected to the tax on turnover (most of the consumer goods) or the export of merchandise not submitted to this tax (investment goods) tends to increase the profit and inversely. This practice had as a particular consequence making the apparent increase of the domestic product strongly affected by marked fluctuations in the level of foreign trade or by changes in its structure. The account of price differences is presented in Poland as follows:see page 135 d, and top of page 136.

Such a situation cannot go on indefinitely. In the five year plan

of 1961-1965, it is suggested that the increase in the national ~~product~~ income must greatly surpass the increase in distributed national revenue, the ratio between these rates of growth of necessity being: [see middle of page 136]

From the ratio between these figures, it is easy to conclude that in the past the fruits of labor (distribution of the national revenue) were greater than the effort (~~gross national product~~ national income produced) and that the situation must become reversed in the future (if one expects part of private consumption in the national ~~product~~ income to remain unchanged, which corresponds roughly to reality. It was 66.7% in 1960 and will be 66% in 1965). It is obvious that such a dispersion of ratios

$\frac{\text{quantity of labor spent}}{\text{volume of consumption realized}}$ in the two successive periods and liable to affect in a certain way the inclination to work

($\frac{\text{input of physical effort}}{\text{output of material results}}$) and even the inclination to create

($\frac{\text{input of moral effort}}{\text{output of material and moral results}}$).

This can prove that foreign trade in a country with a planned economy can have just as large a scope as in a capitalist country.