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DISTRIBUTION OF INDUSTRIAL PRODUCTS IN POLAND

1. INTRODUCTION

Shortage of raw materials, materials and fuels poses today the biggest barrier to development of the Polish economy. Due to insignificant possibilities of increasing the supply of these goods through import and bigger domestic production, the greatest hopes for improvement of situation in this field are linked at present with economical and rational use of industrial products.

Hitherto, Polish firms have been displaying a very weak propensity to savings and rational use of raw materials and materials. The previous management system based on commands and centralized allocations of industrial supplies did not promote their rational use. By means of various arguments Polish firms always managed to justify effectively their wastefulness before their superior units. The setting of prices on the basis of production costs and absence of demand barrier were making it possible to compensate losses resulting from such wastefulness by raising prices of end products. In all those cases where prices had to be kept at a constant level, enterprises were obtaining higher subventions from the budget.

The management systems and unfavourable material-intensive structure of the Polish economy with a low share of manufacturing industries caused a relatively high material intensity of the GNP. That is illustrated by Table 1.

Analysis of Table 1 shows that generation of \$ 1,000 of the GNP in Poland involves several times bigger consumption of steel,

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cement and energy than in highly developed capitalist countries¹.

Table 1

Estimates of material-intensity and energy-intensity of the GNP in 1981
(per \$ 1,000 of the GNP)

Country	Steel (kg)	Cement (kg)	Energy (fuel tons)
Poland	182	196	1.7
Great Britain	28	27	0.6
FRG	49	46	0.5
France	35	50	0.6
Italy	80	120	0.7
Japan	65	75	0.4
USA	45	27	0.9

Source: T. Wojciechowski, International Comparisons of Material-Intensity of National Income, "Gospodarka Materialowa" 1986, No. 7 (in Polish)

The high material-intensity of the GNP causes that its dynamics is determined by consumption dynamics (thus also supply-dynamics) of raw materials and materials. For example, in the main sector of the Polish economy - industry, the correlation between net production dynamics and consumption dynamics of raw materials and materials can be described by a regression equation (W. Wilczewski 1987) taking a form: $y = 1.83 + 0.98X$, with $R^2 = 0.91$. This means that increase of consumption of raw materials and materials of 1% produces its effect in the form of net production increase of 0.98%². Thus, it is a less than proportional effect. In the socio-economic plan for the years 1986-1990 adopted by the Parliament it has been assumed that ca. 60% of the GNP growth will be attained through reduction of material-intensity of the economy. This task cannot be accomplished without appropriate trans-

¹ International comparisons of material-intensity of the national income always carry some errors. Estimates made on the basis of different sources and by means of different methods yield different results. Therefore, it is necessary to take into account not the level of particular indices but their proportions. Proportions of material-intensity indices estimated by means of different methods appear to be similar and, thus, reliable.

² The quoted results were obtained by W. Wilczewski through an analysis of 15-year time series (1970-1985).

formations in the system of management and structure of the Polish economy. These are the most important but not the only factors determining material-intensity of the national income. A significant role may be also played here by the system of distribution of industrial products. This system is known to be determining an optimal allocation of deficit raw materials and materials, it affects effective procurement of industrial supplies by enterprises, and exerts its influence on quality of these supplies, etc. Owing to it, this system may be promoting restoration of market equilibrium and reduction of material-intensity of the economy. It is from this point of view that the analysis of the distribution system of industrial goods in Poland will be performed below.

2. MAIN LEGAL REGULATIONS IN THE SPHERE OF INDUSTRIAL PRODUCTS DISTRIBUTION

Throughout the entire postwar period till 1982, there prevailed the management system in Poland based on commands and centralized allocations of industrial supplies. Its natural consequence was the fact that distribution of industrial goods was of an administrative character. Tasks assigned for enterprises by their superior units were accompanied by appropriate allocations of resources: raw materials, materials, fuels, etc. It means that enterprises did not organize distribution channels by themselves and they did not act as authentic buyers.

The process of reforming the Polish economy was initiated in 1982. A number of new concepts in the sphere of management system have been advanced. The proposed changes boil down to introducing a parametric management system and treating enterprises as basic and autonomous economic entities.

Since principles of administrative allocation of industrial goods became incoherent with the new management system, it was decided that the administrative distribution would be finally abandoned in 1983 and replaced by a free turnover of industrial resources (raw materials, materials, semimanufactures, etc.). Unfortunately, the administrative distribution has been preserved till the present day, and in 1985 the Parliament empowered the government to apply rationing of industrial goods within an unlimited time.

It is my opinion that several factors accounted for maintenance of the administrative distribution after 1982.

1. It was a period of very low and steadily deteriorating supply of industrial goods. Most suppliers held a monopolistic position on the market, while restricted import possibilities did not allow to undermine it. In such situation it was feared that absence of the formal (official) rationing would be replaced immediately by the informal rationing, less objective and aggravating the situation of small enterprises. It was supposed that in a competitive struggle for industrial supplies the most important spheres of the economy (from the social point of view) would suffer. Accordingly, the Centre recognized that due to common shortage of industrial goods they should be allocated - by means of administrative decisions - for implementation of the most vital social goals.

2. Price elasticity of demand for industrial goods was (and is) very low, sometimes it is close to zero. It was thought that an unrestrained turnover of these goods and free movement of prices would not lead to the restoring of an equilibrium between demand and supply. It was a common opinion that practically any increase of prices for industrial goods would be accepted at once by their buyers i.e. producers of end products, because the latter did not encounter any barrier on the consumer goods market either and could successfully compensate increase of prices for industrial goods by a properly high increase of prices for end products.

3. A common faith in effectiveness of the administrative allocation of production factors might also constitute some barrier to introduction of a free turnover of industrial goods.

4. A significant role was also played by a desire to preserve the power by various institutions and groups of interest. After all, it is well known that an institution allotting deficit goods automatically becomes an important centre of economic power, and can exert a strong influence on enterprises seeking these goods.

Consequently, the administrative distribution was preserved. However, it did not encompass all industrial goods. That was due, first of all, to the fact that it was incoherent with assumptions of the new system of management. Secondly, because deficit of industrial goods was so huge that it would be difficult to ensure access to them (even very modest) for all enterprises.

The government selected the assortment groups being in the biggest deficit and it was decided to exclude them from free selling. In 1983 there were ten of them, and in 1986 as many as 90,

which constituted 40-50% of all material flows. In 1987, the object scope of the administrative distribution was restricted to 40 commodity groups. They include, among others, fuels, metallurgical products, non-ferrous metals, plastics, electrical wires wood materials, etc. It must be underlined that these are very many individual products. Preference in their sales is given to those enterprises which are accomplishing the so-called priority goals. These goals are determined by the government as well

Initially, the government was setting numerous priority goals, which were, moreover, defined very imprecisely. As a result of it the implementation of these goals was absorbing the whole supply of certain raw materials and materials. It meant that unprivileged firms (i.e. those whose output was not given a priority character) had no chances to purchase deficit goods. The list of such goals was substantially reduced in 1988. It is estimated today that their implementation will absorb ca. 12% of the total supply of raw materials and materials. However, for some assortments this index reaches 40% (e.g. polyvinyl chloride, steel pipes) (A. Karczykowski 1987).

It has been the government's desire to equip the administrative distribution with "economic characteristic". For this purpose a system has been created (Decree No. 124) in which allocations of deficit industrial goods are made not by central units but by enterprises appointed by the government or newly-established. Owing to this, allocation of deficit production factors takes place through horizontal contacts (enterprise-enterprise) and not through vertical contacts (enterprise-superior unit). The enterprises appointed by the government (28 in all) have a status of the so-called obligatory middlemen in trade in industrial goods. They act as middlemen in all buying-selling transactions concerning deficit assortments. Moreover, they check whether a given buyer really implements priority goals and, thus, they ultimately decide to whom and how much should be sold. That implies that these enterprises have obtained a supermonopolistic position in trade in industrial products.

Producers of deficit materials are obliged to sell them to an obligatory middleman or to a firm indicated by the middleman. A producer can freely dispose of only 0.5-1% of goods produced. This manner of allocating deficit materials has revealed its shortcomings soon. They result mainly from equipping firms-obligatory middlemen with a supermonopolistic position. It appears

in practice that these firms often usurp a right to distribute also these materials, which have not been defined as deficit ones by the government and which - in accordance with law - should be available in the free market. Moreover, they also allocate, according to their own discretion, this parts of deficit goods, which eventually remains after satisfying the needs of privileged buyers. Thus, behaviour of enterprises equipped with a status of obligatory middlemen ultimately expands the scope of compulsory buying-selling transactions.

Enlargement of such "forced" distribution is, moreover, due to the following circumstances:

1. To impement priority goals fixed by the government there are required not only materials sold by obligatory middlemen but also those which are available in the free market. Producers of such materials are obliged to sell them to privileged buyers in the first priority.

2. It sometimes happens that producers of non-deficit goods do not want to conclude purchase-sale contracts with buyers and refer them to an obligatory middleman. Such behaviour may be attributed to the fact that Polish enterprises have grown accustomed to the administrative distribution, and to lack of experience in conducting an independent distribution strategy.

The institution of obligatory middlemen is one of the forms of rationing industrial goods. The other forms are the so-called consumption quotas, which concern only fuels and energy. This form is also known in other countries. Its essence lies in imposing very drastic financial sanctions on these enterprises which exceed centrally fixed quotas of fuels and energy consumption. Remaining industrial goods, which have not been classified as deficit ones by the government (i.e. those goods whose shortage is not so acute) are freely accessible in accordance with the economic law.

3. PRACTITIONERS' OPINIONS ABOUT THE PRESENT SYSTEM OF INDUSTRIAL GOODS DISTRIBUTION.

In mid-1987, there was carried out (T. Wojciechowski) an anonymous questionnaire survey among 265 employees and managers of procurement services representing over 180 enterprises. Its aim was to collect opinions of practitioners about effectiveness of the material flow process in their firms.

61% of the respondents stated that the existing distribution system of industrial goods was worse in comparison with that from the years 1970-1980. Meanwhile, 22% of the respondents considered it to be better, and 17% did not express any opinion.

Over 80% of the respondents claimed that everyday procurement difficulties of their enterprises were bigger than in the periods 1975-1980 and 1983-1985. They frequently expressed an opinion that "procurement of industrial supplies steadily deteriorates no matter what system we 'invent'".

Bigger procurement difficulties appeared to be faced by small enterprises (below 500 employees), while bigger enterprises were relatively more often encountering difficulties with purchasing auxiliary materials.

The questionnaire contained a question, "Does the actual scope of centralized allocations coincide with that formally fixed?". As many as 93% of the respondents answered that the obligatory distribution had a wider scope in practice than it had been determined by law, with 48% of them claiming that this scope was much wider. Only 7% of all the respondents stated that the scope of obligatory distribution in practice did not go beyond these assortment groups which had been distinguished by the government.

These opinions indicate that a phenomenon of informal obligatory distribution tends to intensify again in Poland at present. Suppliers of industrial goods, who theoretically belong to the free distribution system, behave in a way similar to that of compulsory middlemen - they decide freely who, how many, and what products may get. Quite often they grant their preferences in purchasing to those buyers, who offer them additional benefits apart from the price. From among 178 persons who expressed their opinions on this subject, 87% admitted that they were giving various presents when purchasing raw materials and materials (in their number, 13% were always doing it; 51% - often; 36% - from time to time). Materials are sometimes sold to definite buyers who have smaller requirements as regards promptitude of deliveries, quality of products, etc. It should be noted here that from the viewpoint of enterprises who are unable to buy necessary raw materials and materials, both formal and informal distribution are equally troublesome (with only this difference that the informal distribution is not bureaucratized). Of course, it is difficult to estimate the scale of obligatory distribution (espe-

cially of the informal one). However, in the opinion of many authors it has a common character at the present time.

In order to explain more precisely the causes of the respondents' dissatisfaction with the present system of distribution, I shall analyze below the main flows taking place in distribution channels.

4. ANALYSIS OF FUNCTIONING OF DISTRIBUTION CHANNELS FOR INDUSTRIAL PRODUCTS

The concept of market channel can be applied in the studies on distribution of industrial goods. This concept is very well described in the marketing literature. The three main flows taking place within a market channel such as orders, products and information are characterized below.

4.1. FLOW OF ORDERS

In relation to goods treated as deficit ones by the government there are binding regulations about the so-called compulsory middlemen (discussed at the beginning of the paper). In practice, it implies that orders for this group of goods pass along an extended route, because buyers are obliged to submit their orders with middlemen defined in a relevant law, and these in turn pass them to producers. Thus, middlemen are an additional and obligatory link between a producer and a buyer, extending the channel and hampering flow of information. A buyer is in a subordinated position in relation to an obligatory middleman, who possesses exclusive rights to trade in a given product.

Industrial goods, which are not encompassed by regulations about obligatory middlemen, are ordered directly from producers or in any other freely chosen trade organization dealing with their sales. Unfortunately, also in this case a buyer's position is inferior to that of a supplier, because producers hold monopolistic positions in most cases. Moreover, supply of this group of goods does not satisfy fully demand, which additionally strengthens the position of suppliers.

For these reasons, suppliers choose the most advantageous offers of purchase, and they freely adjust terms of transactions

to their own interests. It is a common practice, for example, to accept orders without stating precisely the time of delivery, quantity and quality of products, to shorten the warranty period etc. A supplier often inserts into purchase-sale contracts appropriate clauses protecting him against sanctions for failure to comply with contract terms. Among suppliers it is quite a common custom to demand the placing of orders well in advance, and generally not later than 90 days before the time of delivery. These are archaic terms in comparison with e.g. the Japanese system Kanban (New Philosophy 1987) requiring a great promptitude of deliveries and allowing, for example in Nissan plants to maintain 8-hour inventory of materials. In other countries (FRG, USA) suppliers guarantee delivery within one week. Hence, the demand of Polish enterprises is always relatively higher, because they must maintain much bigger material inventories (for 60 up to 120 days). (T. Wojciechowski, W. Włodarczyk 1987).

The ordered quantities of raw materials and materials are, moreover, usually bigger than real needs of buyers. In this way, they try to safeguard themselves in case a supplier delivers a smaller quantity of materials than it is stipulated in a contract.

It often happens that a potential buyer does not receive any reply to his offer of buying, that is to say he gets neither a refusal nor a confirmation. That is why a relevant law has imposed an obligation on a supplier to provide an answer within 14 days, with a failure to comply with this regulation involving a penalty. That is a paradoxical situation, in which a supplier's behaviour determined by a simple culture of negotiations elsewhere is enforced by appropriate acts of law. In turn, in order to discipline suppliers legal regulations impose an obligation on buyers to exact stipulated penalties when the terms stipulated in a contract have not been kept. In practice, however, buyers do not exact stipulated penalties fearing deterioration of their relations with producers.

A characteristic feature of contract-based relations between Polish enterprises is their short-term nature, as suppliers are not interested in concluding stable long-term contracts.

4.2. FLOW OF PRODUCTS

As it has already been mentioned, the physical flow of industrial goods does not correspond in most cases with stipulations

of contracts concluded between suppliers and buyers. Distribution channels are inelastic. Suppliers are not able to tackle fluctuations of demand as their material inventories are too small. This is illustrated by the following table.

Table 2

Level of inventories of some materials in the 3rd quarter 1984
measured by number of days of consumption

Materials	with suppliers	with buyers
Rolled products	9 days	130 days
Zinc coated sheets	6 days	90 days
Aluminium conductors	11 days	340 days

S o u r c e: A. Zawalski, Principales of Cooperation between Suppliers, Middlemen and Buyers in Materials Turnover, Gospodarka Materialowa 1985, No. 6 p. 139-140.

A very low level of wholesale inventories is most alarming here. It is estimated that these inventories cover only a several-day consumption in Poland, while to ensure continuity of sales they should be covering their 60-70 days consumption (A. Zawalski 1985). As a result of this situation the wholesale trade has ceased to be a reliable and elastic source of supply.

Excessive inventories accumulated by buyers imply obviously their slower rotation and freezing of capital. Nevertheless from the microeconomic point of view these inventories fulfill their vital functions. First of all, they safeguard buyers from uncertain and unrhythmical deliveries. They may be also exchanged for other, missing materials. The phenomenon of the so-called secondary turnover among enterprises has quite a wide scope today, and it is a consequence of ill-adjusted assortment structure of primary turnover to buyers' needs. Secondary turnover increases obviously costs of distribution of industrial goods.

It must be also stated here that consequences ensuing for enterprises from financing their excessive inventories are less unpleasant at the present time than losses resulting from production intervals caused by lack of raw materials and materials.

Accumulation of abundant inventories causes that buyers may constitute a major source of supply for one another. They declare increasingly more often the necessity of opening consignment

warehouses for several enterprises belonging to a specific industrial branch. Such a solution could allow to release capital frozen in inventories. So far no warehouses of this type seem to have been opened in Poland.

4.3. FLOW OF INFORMATION

The most valuable information items include those which inform about sources of supply of raw materials and materials. Procurement services employ the most talented employees. In order to secure the necessary industrial supplies, some enterprises may be employing personnel from other departments, not excluding even the top management.

Unlike information about supply sources, information about demand is not collected, because sales of raw materials and materials do not involve any troubles. The only information items about size and structure of demand are buyers' orders. It is on their basis that the Centre estimates size of deficit of particular industrial products. Whenever it is found that such deficit is big a given products is excluded from free trade to be sold through obligatory middlemen.

As it has already been mentioned, orders submitted by Polish enterprises usually exceed the existing needs. Hence there exists a justified apprehension that estimates of materials deficit made by the Centre are not fully reliable. They should be based on results of surveys carried among buyers and not on the analysis of orders submitted by them.

Another problem concerns information about inventories. Some enterprises have accumulated such big inventories that they do not even know themselves what their structure is like. It often happens that they order materials not knowing they have them in their own warehouses, especially when such warehouses are located in different plants belonging to a given enterprise. Absence of appropriate information systems creates the so-called apparent demand, which deepens the existing market disequilibrium.

5. CONCLUSIONS

The above analysis of the distribution system of industrial goods shows its numerous drawbacks. They could be briefly listed as follows:

- the system is characterized by excessive bureaucracy;
- the scope of the rationing of industrial goods is steadily and unofficially expanded;
- the administrative distribution introduces an element of uncertainty, which results in excessive demand of enterprises and accumulation of excessive inventories; these phenomena tend to deepen the market disequilibrium, on the one hand, and generate secondary turnover among enterprises, on the other one;
- the administrative distribution raises costs of turnover, e.g. costs involved by employment of many thousands of people in the rationing system, costs of secondary turnover, etc.;
- the system of obligatory middlemen has equipped many institutions and enterprises with a supermonopolistic position in trade in deficit raw materials and materials. In this situation, they may adopt behaviours incompatible with original intentions of the Centre;
- the administrative criteria of allocation of deficit raw materials and materials have their shortcomings, because they are based on imprecise information about the size of the actual deficit, and on quite arbitrary determination of priority goals. As it is known in the seller's market situation there is missing reliable information about the structure of demand and social needs.

Target solutions of the reform envisage complete abolition of the rationing system. Some economists postulate, however, that it should be abolished at once and that free prices should be introduced for all raw materials and materials. Others claim that it should be preserved until market equilibrium has been restored. In their opinion, liquidation of the rationing system in conditions of the seller's market will release the informal rationing.

It is my opinion that the curbing of rationing should be accelerated. An argument here may be the fact that when numerous products were withdrawn from the system of obligatory middlemen in 1987 there was not observed a "bigger chaos" in their sales. The number of assortments encompassed by the administrative distribution should be verified each year.

Efforts of the society should be concentrated, however, not on the improvement of rationing principles but on restoring the market equilibrium. This calls for radical systems and structural changes in the Polish economy, which would lead to decreasing its materialintensity.

During the transition period, i.e. till the time a relative market equilibrium has been reached, the administrative distribution seems to be necessary. Still it would be advisable to improve the situation in the field of purchasing industrial goods by these enterprises which do not execute priority objectives. These are generally small socialized firms and the entire private sector. They are known to have significant advantages as regards satisfaction of social needs. Among others, they are more elastic and more sensitive to requirements of consumers, and they are characterised by big elasticity in their activity. The raw materials barrier hampers their development and accounts for their exits from the market. It would also seem advisable to introduce, alongside the administrative distribution, a semi-wholesale commercial sales of deficit raw materials and materials (i.e. at appropriately higher prices), from which the above mentioned small firms could benefit. Such solution has been successfully applied in relation to certain consumer goods, e.g. some kinds of meat are sold both within the rationing system and commercially.

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DYSTRYBUCJA ŚRODKÓW PRODUKCJI W POLSCE

Cechą charakterystyczną dystrybucji środków produkcji w Polsce jest fakt, iż ma ona miejsce w warunkach głębokiego deficytu wielu podstawowych surowców, materiałów i paliw. Brak jest rynkowych kryteriów alokacji tych środków. Ich dystrybucja posiada w dużej mierze charakter administracyjny.

Aktualnie najważniejszym problemem jest systematyczne ograniczanie zakresu dystrybucji przymusowej oraz stworzenie warunków dla powstania autentycznego rynku środków produkcji.

W artykule przedstawiono:

a) podstawowe przepisy prawne obowiązujące w sferze dystrybucji środków produkcji w okresie 1982-1987,

b) opinie praktyków o aktualnym systemie dystrybucji,

c) analizę wybranych zachowań nabywców i sprzedawców środków produkcji.

Artykuł kończą wnioski poświęcone ocenie możliwości odchodzenia od dystrybucji administracyjnej w Polsce.