ACTA OECONOMICA

ACADEMIAE SCIENTIARUM HUNGARICAE

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AKADÉMIAI KIADÓ, BUDAPEST

TOMUS 4
FASC. 1
1969

ACTA OECONOMICA

A MAGYAR TUDOMÁNYOS AKADÉMIA
IDEGEN NYELVŰ KÖZGAZDASÁGTUDOMÁNYI FOLYÓIRATA

Felelős szerkesztő:

FÖLDI TAMÁS

Szerkesztőség: Budapest V., Nádor utca 7.

Megjelenik negyedévenként, évi 1 kötetben. Előfizetési díja belföldre 120,— Ft, külföldre 165,— Ft kötetenként. Megrendelhető az Akadémiai Kiadónál (Bp. V., Alkotmány u. 21), a külföld részére pedig a Kultúra Könyv és Hírlap Külkereskedelmi Vállalatnál (Budapest I., Fő u. 32).

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REDIGIT

T. FÖLDI

TOMUS 4

AKADÉMIAI KIADÓ, BUDAPEST
1969

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 3—18 (1969)

BÉLA CSIKÓS-NAGY

FIRST EXPERIENCES GAINED IN THE IMPLEMENTATION OF THE ECONOMIC REFORM IN HUNGARY

The author starts from the fact that the reform of economic control and management implemented in Hungary in 1968 has come up to expectations. He reviews the main principles kept in view while formulating economic regulators for the new system. Problems of employment and productivity are discussed in detail. Similarly a detailed review and analysis is given of the problems connected with competition and production concentration, trade in the means of production, foreign trade, price regulation and credit policy — as they emerge under the new conditions.

The new system of economic control and management, launched in 1968 has come up to expectations. It did not lead to any temporary setback nor to a weakening of the planned economy. Some of its positive effects have appeared earlier than expected. The first results of social initiative are also beginning to show themselves. A healthy process of transformation in the pattern of production has started. The economy is developing more reasonably, less harnessed into bureaucracy. The interrelations between production and consumption are emerging with growing strength. All this is taking place gradually and with greater economic efficiency. The first experiences have confirmed the hypotheses on which the reform was based. Stabilization of the economic rules has become a realistic possibility and this is an important condition of every system of control which relies on regulation based on material incentives.

In all certainty, these positive results may be attributed also to the *careful preparation of the reform*. The revision of the system of control and management had been decided at the end of 1964 and the new system of regulation was given a foundation by three years' hard work. In the course of these years it was often asked, why should the preparation of the reform take three years. In retrospect, it can be stated that the careful preparation, the many-sided critical analysis, the intensive study of the interrelations between the economic regulators all have played an important role in the undisturbed smooth switch-over and in preparing the whole society for the reform.

The reform of economic control and management has, of course, not solved all earlier problems, and new ones have also emerged. The main question is, what conclusions should now be drawn from the experiences hitherto gained in the implementation of the reform.

Production and productivity

The reform was initiated under favourable circumstances. The year 1967 closed with good results: economic growth was quicker than the rate achieved in earlier years. Between 1960 and 1966, the average annual growth rate of national income had been 5.3 per cent whereas in 1967 it reached 8 per cent. This came about with a 9 per cent rise in industrial production and a 14 per cent one in construction. The rapid rise in industrial output continued in 1968: by June of that year, it surpassed the level of the preceding year by 7 per cent. Agricultural production fell in 1967 by 2 per cent but it must be considered that in 1966 it had been 7.7 per cent above the average level of the preceding five years. In 1967, the yield of wheat per hectare approached 26 quintals which, though still behind the results achieved in some Western European countries, is twice as the much as average yield before World War II.

The positive effects of the new system of economic control and management are reflected already in some of the 1967 results. Some measures connected with the reform were implemented in agriculture already in 1966 and mid-1967. These concerned primarily the raising of the price level of agricultural products. But the new economic mechanism affected also industry. In 1967, the industrial enterprises had already been given a comparatively free hand in drawing up their production program, although their independence as regards planning came into force on 1st January 1968 only.

The wage level is developing satisfactorily under the new system. Average wage has risen by about 3 per cent which conforms to the normal increment. Also the differentiation emerging as a result of the autonomous wage policy moves within modest frames: the rise in average wages varies between 2 and 4 per cent in the production branches (enterprises). It should be considered a positive tendency that a growing number of enterprises is introducing up-to-date and more efficient forms of wage payment. When the reform was in preparation, the anxiety was widely voiced that the level of employment may decrease. This has not occurred; on the contrary, employment considerably increased. Those seeking a job were able to find work and — what is most important — the young people could find employment smoothly on leaving school. However, this has led to unsatisfactory development in labour productivity. It seems that most problems have emerged on this point.

When working out the economic regulators, the following three main principles were kept in view.

1. *Full employment* must invariably be maintained, but it must be achieved that enterprises organize production with the necessary labour and superfluous labour must be shifted, in harmony with needs, where a shortage of labour had hitherto hindered the development of production. Therefore, the legal restrictions to the movement of labour have been lifted in several respects.

We were of the opinion that the movement of labour which is indispensable for the development of a rational economic pattern should take place gradually and in an organized manner. Therefore, the continuation of production has been made possible, transitorily, by granting subsidies, also to the enterprises operating at a loss.

2. A more organic connection should be created *between personal income and the results of the enterprise.* Therefore, an autonomous enterprise wage policy has been introduced, with certain limitations. The enterprise should be free to regulate wages between lower and upper limits set for the individual jobs, but for 1968 a ceiling of 4 per cent has been fixed to the rise in average wage. This puts a limit to the rise in wages and to differentiation.

3. In order *to bring about a more organic connection between the rise in productivity and wage increases,* the proportions have been prescribed in which profits can be divided between the sharing, development and reserve funds. The system of taxation has been scaled accordingly.

Even under such conditions, many people were of the opinion that a more forceful movement of labour, entailing transitory unemployment, might develop and become a source of social tensions. Changes in jobs did, indeed, increase considerably in 1968 as against earlier years. This movement, however, took place mostly on the initiative of the workers themselves. The movement of labour was not accompanied by transitory unemployment, *the growth rate of employment even accelerated.* In 1968 the rise in industrial production was 5 per cent, but the increment in industrial output due to increased productivity was less favourable than in the preceding years.

The question had to be raised, whether the transition to the new system of control and management could have contributed to the *deterioration in the rate of productivity* and, if so, to what extent and for what reasons. Many attribute the deterioration in this ratio one-sidedly *to the new system of interest in profits.* According to the rules of profit taxation, in 1968 wages can be accounted for among the production costs only on the average 1967 level. Wages above that must be shown as profits and accounted for the debit of the sharing (personnel) fund after taxes. Thus, the system of taxation differentiates the increment in enterprise wages according to whether they result from an increase in average wages or in staff numbers. In the first case the additional wages are subject to taxation while in the latter they are free of it. An extreme example worked out by the Ministry of Labour shows that the wage costs of a one per cent increase in staff can be met out of a 1.5 per cent increase in profits, whereas to increase the average wage by one per cent, the volume of profits must be raised by 20 per cent. Under such conditions there exists no real possibility for the enterprises to reduce the surplus labour employed mainly in the below-average wage categories, since this would automatically raise the average wages and there would hardly be any possibility, or none at all,

to raise the wages of the staff really needed. Similarly, should an enterprise need highly qualified new employees, it will almost be compelled to raise the staff also in the lower wage categories, otherwise it would transgress the limits set to average wages. From this the conclusion has been drawn that *the economic regulators efficiently secure the stability of the wage level but work against the rise in productivity; encouraging over-staffing in an unjustifiable manner, they also fail to restrict the unjustified rise in the purchasing power.*

To solve the problem, some economists have proposed *the introduction of special measures to create interest in saving manpower.* According to these proposals, the enterprises which reduce their labour force could use 50 per cent of the wages thus saved for increases over and above the authorized rise in average wages. This and other proposals were unacceptable since they favour the enterprises which are compelled to reduce production for marketing reasons. Besides, it was the first reactions of some enterprises that gave rise to these proposals and narrow-mindedness also played here a certain role. The enterprises in question seem to have ignored the fact that to create a working place for surplus labour involves separate cost, not to mention the harmful effect of redundant labour on work discipline and the bad atmosphere it creates. All this is detrimental to further development and this attitude also loses sight of the long-term interests of the enterprise. As a matter of fact, any unnecessary increase in staff numbers for short-term advantages will, in the last resort, reduce the volume of profits and, by restricting the growth of the development fund, reduce the possibility of expanding production and improving its conditions, leading thus to less favourable conditions in the long run.

Another point of view had also to be considered. The present principles of labour management have been in force, with certain modifications, since 1957. State regulation of wages has relied on setting lower and higher limits to wages by jobs and on establishing the increment of average wages. The difference consists in that up to 1968 the difference between the higher and lower limits was smaller and the increment of wages was uniformly prescribed, independently of the achievements in the sector (or enterprise) concerned. The changes in the mechanism give, accordingly, an increased role to productivity.

Parallel to the reform of economic control and management two — independent — factors have emerged which render it difficult to form an unequivocal opinion. The first is the transition to *shorter working hours.* In the first half of 1968 about 12 per cent, by the end of the year already 48 per cent of those employed will work shorter hours. Though, in principle, this transition must not cause any setback in output, there are certain signs that sometimes this can be ensured only by increasing the staff. The second is the policy of *locating industry in the countryside,* a policy promulgated some years ago. As a result, the growth rate of industry in the country has in 1968

considerably surpassed that in the capital. Of course, in the industrially backward areas with substantial labour reserves, labour-intensive industrialization is the rule. Industrialization of the countryside will probably pass through the extensive and intensive stages. The deterioration in the rate of productivity may be due to factors in the countryside industry, since the Budapest industry secured 100 per cent of the increment in industrial output by improved productivity performance.

The problem we have to deal with is no doubt one of the most complicated even in international dimensions. If industry were given a free hand to form the wage level in a dynamically developing economy in the state of full employment, this will, as a rule, entail the danger of a price-wage spiral. However, with fixed wages — in general, whenever enterprise wage policies are replaced by government wage regulation — the efficient development of productive forces is impeded at a highly important point. Thus, the realistic alternative for most countries is to set certain limits to wage policies in enterprises, that is, to harmonize economic efficiency with the social normatives regulating economico-political behaviour. This can, however, take place only within contradictory forms. Further research will be needed to work out the detailed proposals to provide a better long-term alternative than the present form of profit taxation.

Monopoly and competition

Competition between enterprises is an organic part of the new system of economic control and management. The decrees introducing the reform have in several respects created the conditions for an unfolding economic competition. The tendency towards "total" monopoly which had been prevailing under the system of plan instructions has been greatly weakened when the rules connected with the "authorized production lines" which have secured monopolistic organization, were abolished. The enterprises had legal security against competition even in the case where other enterprises were physically in a position to turn out the product in question. — Agriculture has now been granted the right to process its own products industrially and to market them. Industrial enterprises have been allowed to finance investment projects out of own resources, and the introduction of new lines of production has been facilitated to improve the pattern of production. The "supply bases" organized for the material supply of industries are now operating as trading companies; the creation of organizations trading in the means of production secures — apart from some exceptions — the free choice of the sources of supply and also of the form of marketing (multi-channel trade). Productive enterprises may be granted the right to carry out foreign-trading transactions. The pro-

ductive enterprises not given this right can organize their export and import activities in cooperation with foreign-trading companies, etc.

Thus, the reform of the Hungarian economic mechanism is characterized by the fact that the monopolies have been abolished in a wide sphere, *without changing, however, the organizational structure of the economy*. The point was not to burden the reform with the intricate problems of reorganization. We were of the opinion that under the new conditions a clearer picture will emerge as to where and what type of reorganization is justified. In this connection, there are two problems particularly worth attention. The first is large-scale integration, the second the question of small and medium-size plants.

In forming large-scale enterprises, two principles of organization were enforced. In some cases, enterprises were amalgamated which had been earlier in cooperation with each other, thus the amalgamation resulted in one *vertical* enterprise. In general, such amalgamation proved to be successful. In other cases, enterprises turning out related products were amalgamated into a large-scale (horizontal) enterprise. In enterprises of this type, there is no connection between the production activities of the individual plants or units, and the amalgamation may often be considered only as an administrative act. It can, of course, not be stated that all such amalgamations were pointless. It is, however, certain that a monopolistic situation emerges when and wherever the horizontal amalgamation embraces an entire industry or a group of products. *Thus, while vertical amalgamation does not or but hardly affect competition between enterprises, horizontal amalgamation will restrict competition.* The measure or extent of the restriction then depends on whether after the amalgamation, a single or several enterprises participate in the production of the commodity in question and whether there is an import article of the same kind on the market. Competition must, of course, not be considered the only point of view. This would be the less correct since in certain industries the development of productive forces may justify and make expedient the maintenance of a monopolistic situation. This also indicates that it will be expedient to put off the revision of the organizational framework in certain branches until the experiences of some longer period will be available.

Concentration of plants is a separate problem. In the past two decades the large-scale industry has been brought about in Hungary partly by the amalgamation of a network of small and medium-size plants originally destined to satisfy the demands of the population and to cooperate with large-scale enterprises. Thus a gap has come about in the pattern of production units. While in this country more than 50 per cent of industrial labour are employed in plants with more than 1000 workers, the corresponding ratio is 40 per cent in the Federal Republic of Germany, 35 in Great Britain and 32 in the USA, etc. The process of concentration and centralization has eliminated the small and medium-size plants to a greater extent than justified. The or-

ganizational setup of almost every branch is characterized by the insufficient number of small and medium plants. International experiences point to the fact that a modern and efficient large-scale industry can function only together with the complementary small and medium-size plants. Only such a harmonious economic pattern is able to secure a pattern of supply that will flexibly adapt itself to demand. In the strongly concentrated system of enterprises, the Hungarian industry solves the vast tasks of developing the forces of production in a satisfactory manner, but it has to struggle with a whole range of articles the supply of which is often insufficient. This problem will not be solved by the free movement of prices alone, though this may considerably contribute to the solution. The problem is, therefore, not that the price of some product is low and its production unprofitable. On the contrary: these are expensive products and high prices continue just because of the unsatisfactory response of supply to demand.

The large-scale plant will respond only to *the market impulses* which require large-scale organization. As a rule, the large-scale plant does not respond to the market signals which it does not consider of major economic importance. In respect of "small" problems, however massively they may appear on the market, the large-scale plant is neutral since there cannot be found a price for which it would be worth-while to sacrifice the advantages of large-scale technology. The pattern of the productive units can be considered adequate when there is a quick reaction at the proper place to any kind of market impulse. Is the structure different from this pattern, the market mechanism will not be able to exert the organizing power it is expected to. In consideration of these facts, in 1968 the issue of artisans' licences has again been regulated and the right of state enterprises to employ homeworkers expanded.

Trade in the means of production

The new system of control and management has created a market for the means of production and the state restricts this free trade only where equilibrium cannot be secured for the time being. Relying on the production and supply forecasts for 1968, we were of the opinion that free trade can be allowed with the following restrictions. 1. Contracts must be concluded for exports (production) envisaged in interstate agreements, for deliveries connected with large investment projects in course, for pharmaceutics, sanitary equipment, etc., representing some 15 per cent of total industrial production. 2. Sales monopolies should be maintained for 58 products, representing about 20 per cent of the trade between the enterprises. 3. Export and import quotas and purchase quotas must be fixed for the major consumers of about 32 products, constituting about 15 per cent of total turnover. 4. Restrictions may

be imposed, in the framework of the import licensing system, depending on the country's foreign exchange situation.

According to the experiences gained in the course of 1968, the new system of trade in the means of production has come up to expectations and *the remaining restrictions can be eased earlier than was expected.* It seems that in 1969 the scope of compulsory contracts can be reduced to 10 per cent from 15 per cent of the value of output, monopolistic trade to 10 per cent from 20 per cent of turnover value and the quotas will cover 8 per cent of trade instead of 15 per cent. This does not mean that the creation of a market for the means of production has not raised rather serious problems. But these are partly independent of the mechanism employed and will partly — at least in our opinion — be easier to overcome when the restrictions on the enterprises are further eased.

What, then, are the problems raised by the creation of a market for trade in the means of production? *These problems arise mainly from the growing demand for materials and the changes in the pattern of this demand.* Understandably, the enterprises will endeavour to pile up stocks of the materials which were earlier "under strict control" in the framework of central allocation, a policy which hindered strongly the organization of a rythmical production process at the smallest costs. This, in itself, changed the pattern of growing demand for materials. The main factor determining the structural changes on the market of the means of production is, however, connected with quality improvement and modernization. In 1968, an above-average rise was experienced in the demand for high quality steel on the part of the engineering industries, for synthetic materials on the part of the textile industry and for steel structures on the part of construction. There is, further, a general tendency to use up-to-date methods of packaging, entailing demand for new materials. These are highly positive changes. As a result, the choice of consumer goods is gradually widening and the competitive position of Hungarian export products improving on the world market.

On examining the problem more closely, the following statements can be made. Earlier, the technical level of the products released by the Hungarian industry lagged behind international standards — at least as regards a certain range of products — because, owing to the restrictions connected with material allocation, it was compelled to employ substitutive solutions which affected unfavourably the use value of the products. It has, however, also become clear that even the same objective will be approached by the enterprises with different material requirements than before, under the system of centrally issued plan instructions. This has become most conspicuous in the case of investments. When all investments were centrally decided upon and prepared, first the production technology was fixed and then the construction adapted as best as could be. These constructions were notorious for their

high *ferro-concrete* requirements. Now, the enterprises prefer constructions where they have still a free hand to choose the production technology later. They start from the fact that technology may change under a longer construction period. In such decisions, the high *steel-structure* requirements of industrial constructions are predominant. This is a positive change since it enables a more flexible adaptation to the world level of technological progress.

Such changes can, however, not be carried out quickly, without difficulties of supply. The majority of materials imported to Hungary is supplied by the CMEA market. Trade agreements are in force with the CMEA member countries. It is not always possible to alter these contracts while they are valid. There remains the import from capitalist countries. These imports, however, can be liberalized only to the extent allowed by exports to the capitalist world market. This is why it has been made possible for enterprises to raise credits in foreign exchange; that is, the capitalist currency is secured without restriction for the enterprise, provided that it undertakes — under reasonable conditions — to realize surplus exports. Of course, this can solve the problem only partially. The problem to be faced can be formulated as follows:

— the transformation process of the pattern of material consumption to serve the technical progress of production must be set a modest pace,

— and all that must be enforced without returning to the central allocation of materials.

It is our opinion that the key to the problem can be found in the levers which had been brought into action with the introduction of the new system of economic control and management; in the final analysis, in the rational behaviour of the enterprises and in the limits which are set to enterprise decisions by the possibilities of the national economy. While preparing free trade in the means of production, we strive to improve the efficiency of the financial regulators.

Foreign trade

Foreign trade and thus also the balance of international payments have developed considerably more favourably in 1968 than in the preceding years. In 1968 an increase of about 5 per cent in exports was accompanied by a 2 per cent rise in imports. This is a result of the reform which is worth attention. In the development of foreign trade in 1968 also the "compulsion to export" plays an important role. The absorptive power of the domestic market in respect of consumer goods has put in the way of expanding production much more effective barriers than estimated because the population

is saving a greater part of income than was expected. In the engineering industries, however, the capacities "held back" for years can be activated mostly through exports.

In earlier years planning deliberately put a brake on the growth rate of production since the production of unsaleable goods took great dimensions. It could not be neglected that half of the material consumption of industrial production is imported and thus a balance had to be struck between material imports and the export of finished products. There still remains the dilemma whether the enterprises, when organizing production according to their own decisions, will satisfactorily solve the problems of marketing, whether the danger of turning out unsaleable goods will not persist. No unequivocal answer to this question can be given as yet. It seems, however, that there is a greater chance to solve the problem under the conditions of autonomous enterprise decision and risk-taking than earlier when under the pretext of plan fulfilment, the enterprise was acquitted from the responsibility whether the economy or the world market needed the product whose production plan had been fulfilled. The problem of marketing will, in all certainty, remain one of the key problems in the years to come, but under the new conditions, it seems that we will be in a position to cope with that problem.

It can, at any rate, be considered as essential that *we succeeded in maintaining and even boosting export activity in the framework of material incentives created for the enterprises*. Two factors have played a major role here. One is a realistic valuation of the domestic currency as against the foreign currencies. The other is, that export subsidies have been provided for the production branches operating with lower than average efficiency. But the problem of *the direction of trade* emerges as in earlier years. The favourable change in the balance of trade has come about as a result of a considerable rise in exports to the socialist countries (the CMEA market) and of a significant fall in imports from the capitalist (other than CMEA) countries.

Over two decades Hungarian industry has developed in cooperation with the CMEA countries. The country can thus not adapt itself quickly enough to the requirements deriving from trade with the capitalist countries which is, however, necessary to procure the foreign exchange necessary to cover capitalist imports. This has always been considered as a long-term task. At any rate, Hungary is interested in a system of the international division of labour that will efficiently promote a free unfolding of productive forces. The cooperation system of the CMEA is approached from this aspect since the bulk of Hungary's international trade is transacted on this market. It is from this point of view that we consider the development of labour division also with countries outside the CMEA as important, provided that it relies on mutual advantages. A country can do anything until it has to determine the regulatory system of economic processes within its own frontiers. In the

international division of labour this can be done only under a system of interstate agreements. It follows from the nature of things that the positive effects of the economic reform will increasingly be felt only when the expectations connected with it become realized also on the international level.

Price regulation

The experiences gained up to now with the new price system are generally positive. Through measures taken in two steps, the level of procurement prices *in agriculture* has been raised by about 17 per cent. The first measure was implemented in early 1966, the second at the beginning of 1968 (in respect of pigs, in autumn 1967), but the new prices were made known as early as mid-1967. Thus, the farmers' cooperatives could make their preparations for the farming year 1967/68 already in the knowledge of the new prices. There are indications that the new prices promote the intensive development of agriculture. With the majority of agricultural products the present prices are applicable also in the farming year 1968/69.

A few words should be said about the draught in 1968. From the point of view of bread grain, the weather conditions were less favourable than in 1952. Still, in 1952 only 13 quintals were harvested on a hectare, while this year the yield was 25 quintals. The advantages of large-scale, up-to-date agrotechnics, among others of deep ploughing and the use of fertilizers are clearly manifest. And weather conditions in 1968 were extremely capricious. There was hardly any rain during the summer; it came, however, although with a delay of about 6 weeks, improving thus the prospects of the autumn plants. The unfavourable weather affected thus beside potatoes only the rather price-sensitive vegetables and fruit as well as the green (rough) fodder. In the latter case the loss was partly made up by a second sowing. Thus, contrary to earlier expectations, the agricultural situation does not give cause for anxiety. As a matter of fact, any deterioration of the position would have affected much more the foreign exchange reserves of the country than the new system of economic control and management.

In connection with the operation of the industrial price system the mutual effects of production and consumption have gained in strength. This feature, together with the immediate reaction to foreign market effects gradually raises economic efficiency. The application of various forms of prices (fixed, maximized and free prices) proved to be correct. The more restricted price forms hindered the price rises and the emergence of inflationary tendencies where the lack of equilibrium would otherwise have led to rising prices. The less strict and the free price forms did, however, enable market effects to make themselves felt. Up to now, no problems have appeared on account of the fact that these various price forms failed to secure equal pos-

sibilities or conditions for the enterprises; in the next period, however, the effects must be analysed carefully also from this point of view.

For the time being, there are problems caused by *the tensions on the market of investment goods*. Particularly in the construction industry there is a tendency towards rising prices. On the market of consumer goods the situation is quiet and balanced.

In 1968 we expected an 8 per cent rise in the monetary income of the population. According to our assumptions, this will not be accompanied by a similar rise in purchases (of goods and services) since the population will save a greater proportion of its incomes than planned.

Commodity supply is better than in the preceding years. Although there is still a shortage in some up-to-date products, the pattern of supply has greatly improved against earlier years. A crucial problem in working out an appropriate trade policy is the regulation of *consumer prices*. There are, of course, certain limits, since the majority of the official price regulations maintained affect the consumption sphere. The prices of prime necessities and basic services are fixed and will remain so in the next years, too. At the same time, the official price is widely asserting itself as a maximum price and this leaves the possibility to reduce consumer prices. As regards, however, the goods with free prices, here the play of demand and supply will act as price regulator.

This consumer price mechanism, which is much more flexible than the earlier one, has well stood the test. When, in 1967, the measures affecting 1968 consumer prices were prepared, it was thought that in 1968 the level of consumer prices would rise by 1 to 2 per cent. The 1968 wage level was regulated accordingly, securing a rise in real wages. Since we could not be quite certain about the extent of price rises in the free sphere, the level of consumer prices was deliberately reduced by one per cent as from January 1st, 1968. Actually the price level has proved to be more stable than had been assumed, that is, the price movements have not affected the planned development of incomes and real wages.

When preparing the reform of economic control and management, partly the principles were determined according to which the regulation of the market mechanism will take place in order to conform to the plan, and partly a new system of economic valuations was created. The complexity of the task derived mainly from the fact that the valuation systems (price and tariff systems, taxation, etc.) had to be developed essentially in a "foreign" economic substance and it had to be assumed that the microeconomic reactions will come into harmony with the system of objectives of economic policy, taking concrete forms in national economic planning. Further, the problem is complicated also by the fact that the changes which have taken place in domestic and international market relations had to be projected to 1968—70,

since the new system of control and management had to be based on stable economic regulators.

To work out the hypothetical valuation system, up-to-date mathematical methods, computer techniques and abstract modelling were all used. It follows from the nature of things that the final forms of the valuation system could be determined only in close collaboration with the economic institutions concerned, with those affected from the point of view of costs or profits. Their contribution was indispensable but they were also biased since a judgement of their activity and their appreciation in material terms is connected with the valuation system. It was therefore anticipated that doubts may arise as to the exactitude of the information material serving as a basis of the valuation system. With the aid of macroeconomic modelling and other methods the extreme cases of distortions could be disclosed and corrected but the main tendency arising from working out the valuation system in this manner could hardly be neutralized. Therefore, when establishing the tax rates connected with the production process, it was assumed that the rate of profits on capital would be one per cent higher in 1968 than shown in the trial balances drawn up by the enterprises.

On the basis of the fact figures for the first half of 1968 (the mid-year balance sheets), the hypothetically constructed system of economic valuation could already be revised. It was established that the price level conforms to the planned one but the rate of profits is by 1 to 2 per cent higher than expected. As against the profit rate shown in the balance sheet, the difference is greater; this, however, is the result of overestimating the value of operative capital. After an extensive analysis the conclusion was reached that a modification of the fixed (or maximized) prices introduced in 1968 would be justified in exceptional cases and in a narrow field, but the revision of the so-called exemptions would be warranted in a wider field.

On introducing the reform of economic control and management, exemptions were made in an extremely wide field. The major forms of these exemptions were the following: 1. Exemption from or reduction of the taxes accounted for among production costs (wage tax, charges on assets). 2. Exemptions in the profit-tax system. 3. Exemption from import duties. 4. Export subsidies (refunds). 5. Other subsidies.

The 1968 situation has proved that a series of exemptions was not justified. The sectors (enterprises) had endeavoured to make the conditions imposed on them under the new system of economic valuation appear much less favourable than they actually proved to be. Thus, a possibility arose substantially to reduce the scope of exemptions. These modifications will improve the new system of *economic control and management since one of its* essential elements is the principle of equal opportunities. The exemptions were intended to act as a "brake" to serve smooth transition.

Credit policy

The application of mainly indirect regulators instead of direct ones and the minimizing of administrative limitations increased the importance of financial policy. The financial regulators, however, could not operate up to now with the expected efficiency.

The *propensity to invest*, high already in 1967, increased in 1968 perhaps even more vigorously. The enterprises had in store a great number of new investment projects which they took out from their drawer in 1968, thinking that they could be realized without difficulty. In fact, many applications for investment credit had to be refused. Of course, in earlier years, too, the investment requirements of the enterprises considerably exceeded the possibilities, but under the former mechanism investment credits had not been repayable. The considerable difference between needs and possibilities had two negative consequences. First, in the tenders the cost effects of the investment project were regularly understated: the investments approved did, as a rule, cost more than was assumed when authorizing the project. Second, when selecting the investments to be carried out, the interrelations between the new investment projects were inevitably upset and, as a result, the economic efficiency of authorized investments did often not come up to expectation.

When preparing the economic reform we started from the assumption that these problems would be solved "at one stroke" with central planning restricted only to the major investment projects affecting the transformation of structure. It was thought that once investments will have to be financed out of profits and investment credits will have to be repaid, the propensity to invest would adapt itself to the possibilities. We believed rather that the trouble would be a transitory reluctance to invest. In fact, what actually happened was the opposite. The enterprises exhausted the annual credit quota within half a year, and continue to exert strong pressure on the banking system to grant new investment credits. Transitory factors are also playing here a certain role. In earlier years, thus also in 1967, more new investment projects were started than warranted by the realistic possibilities. Therefore, in 1967 the volume of investment exceeded the planned level by 15 per cent, and this trend continued in 1968. Thus, the investments relying on central decision are exhausting a greater part of resources than planned and decentralized investments are more limited than was expected. Although this is but a transitory feature, its effects will continue in the year 1969—70. Thus, the elements of development policy based on self-financing can be activized only with a time lag of a few years.

The regulation of investment financing is rendered difficult also by the practice developed in nearly two decades. It has become a general rule to make a qualitative distinction between the fixed and circulating asset

requirements of the new projects (capacity extension). There was a tendency to identify the capital requirements of development with the fixed asset requirements. Accordingly, the enterprises followed the reasoning that investment "proper" would be financed from the development fund while the bank would automatically finance the circulating asset requirements involved. But the economy cannot be broken down into atoms. The engaging of circulating assets consumes national income as does that of fixed assets. Nor can enterprise self-financing be restricted to the fixed assets. What the enterprises build up is not an investment but a development fund. Still, it seems some time must elapse before they become conscious of this fact.

As regards *short-term credits*, the banking system has to observe business principles and the banks may refuse the granting of credit whenever an enterprise is not credit-worthy. Earlier, credit drawings were limited by liquidity norms. This will now be replaced by the obligation to pay interest at the rate of 8 per cent. But according to our experience this interest will not hinder the enterprises to increase substantially their inventories with the aid of credit. Thus, the free trade in goods has not received satisfactory support from credit policy. The problem cannot be solved by raising the rate of interest. Relying on the experiences of earlier years, the enterprises will reason as follows: the cost-increasing effect of the interest burden is smaller than the rise in costs that would arise if continuous production were disturbed by difficulties in material supply.

The efficiency of credit policy is *limited also by the general principles of economic policy*. If, by transitorily subsidizing enterprises operating at a loss, the government wished to maintain a state of equilibrium, it will be difficult to refuse credit to any enterprise for credit-policy reasons. It is the experiences gained in short-term crediting that illustrate best the complexity of the problems connected with the regulation of production. This does not mean that the financial regulators proved to be quite ineffective. But the activation of financial regulators raised certain problems, the existence of which had earlier been hardly realized. It is, however, beyond doubt that some of the problems cannot be solved by ordinary banking routine. The process of rationally transforming the pattern of production can take place, it seems, only under the organized control of economic policy. This is one of the novel tasks now posing themselves.

ПЕРВЫЙ ОПЫТ РЕФОРМЫ ХОЗЯЙСТВЕННОГО УПРАВЛЕНИЯ В ВЕНГРИИ

Б. ЧИКОШ–НАДЬ

Автор исходит из того факта, что введенная в 1968 году венгерская реформа хозяйственного управления оправдала ожидания, и не привела к временному спаду или к ослаблению планомерности. При установлении мер экономического регулирования учитывались следующие три осовных принципа: 1) неизменное обеспечение полной заня-

тости таким образом, чтобы требуемая производством рабочая сила распределялась в соответствии с потребностями; 2) установление более тесной связи между личными доходами и хозяйственными результатами предприятий; 3) в интересах создания более органической связи между ростом производительности труда и повышением заработной платы были определены правила использования прибылей предприятий и приведена в соответствие с ними система налогообложения прибылей.

Усилившаяся миграция рабочей силы даже временно не сопровождалась безработицей, наоборот, ускорились темпы роста числа занятых. Автор оспаривает взгляды о том, что недостаточный рост производительности труда якобы связан с системой заинтересованности в прибылях, с мерами экономического регулирования. В своих доводах он обращает внимание на аспекты перспективной заинтересованности, на взаимозависимости, связанные с переходом на укороченную рабочую неделю и с размещением промышленности на периферии. Автор детально излагает и анализирует проблемы, возникшие в связи с конкуренцией и производственной концентрацией, организацией сбыта продукции, внешней торговлей, регулированием цен и кредитной политикой.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 19—35 (1969)

M. TARDOS

A MODEL OF THE BEHAVIOUR OF CENTRAL AGENCIES AND ENTERPRISES*

The author's aim is to give a mathematical formulation of the regulatory system of the new economic mechanism and its functioning as well as to analyse the characteristics of the model thus derived. The basic unit of the model is the productive enterprise. The model of the national economy consists of the entirety of enterprise models and of central constraints. The national economic model to be built will serve to analyse the actual behaviour of the enterprises and the centre.

The regulation system of the economic mechanism introduced in Hungary in 1968 is based upon complicated assumptions. The enterprises are autonomous economic units determining the structure of their production and sales themselves. Central agencies, in general, do not directly command the enterprises, only in exceptional cases. Economic processes are influenced by the central agencies of economic management through indirect regulators. Enterprises determine the structure of their production and sales on the basis of their own system of preferences.

This preference system is motivated by the endeavour to increase the volume of the enterprise profit. Profit serves as a source for the development of the enterprise, as well as for the remuneration of workers and employees. Stimulation for the increase of profits and the achievement of the optimum size of the profit-sharing fund of the enterprise, serving as a source for remuneration, are considered identical targets.

The enterprises, liberated in the new system of management from the impact of rigid commands, are able to adjust themselves easily to the market conditions. Central agencies are able to determine economic regulators in a way that under their impact enterprises shall become interested in the fulfilment of the overall plan for the national economy.

The study describes and features first a model, which seemed to be most suited for the formalization of the regulation system, and of enterprise behaviour under the new economic mechanism. It is a specific type of economic model where the decisions are made on two levels. The center fixes economic regulators and the enterprise determines — on the basis of its preference function — the production and the sales. The above formalized model is a

* The model has been constructed with the aid of a team sponsored by the Ministry of Finance. The author gratefully acknowledges the valuable remarks and suggestions made by J. Kornai.

static one, prepared for a single period of time; but it is possible to develop it later into a multi-stage kind of a dynamic model.

A plan for quantification of the model is given in the second part, together with the suggested series of computations. Moreover, we are drawing up a research project for the study of the actual behaviour of both the enterprises and central agencies in Hungary.

Finally, a preliminary characterization of the formalized model of the new economic mechanism is sketched.

Model of the enterprises

Our system can be formalized in stating that its basic element is constituted by the productive enterprise. Every productive enterprise is an autonomous partial model, expressing its possibilities for production and sales, as well as its system of preferences, on the basis of which the enterprise chooses the adequate one from among the feasible production and sales structures. We are dealing, thus, with a programming model, with a system of constraints considered linear for the sake of easier handling and with an objective function, which is either linear or hyperbolic:

When describing the model, we denoted its variables by x, y, z, and w. By x we denoted production, by y export-sales and by z sales on the domestic market. We applied w to denote competitive import purchases in supplementary computations. Technical coefficients characterizing the objective economic situation of the enterprise are denoted by minuscules of the alphabet, whereas the constraints by capital letters. Rent- and price-type economic regulators expressing decisions of central agencies are marked by minuscules of the greek alphabet, quantitative regulators by capital letters of the latter.

The first type of the equations is a commodity balance: expressing that production minus sales is equal to the change in stocks.

$$x_h - \sum_{i=s,\,k} y_{hi} - z_h = R_h \tag{1}$$

$$h = 1, \ \ldots \ m$$
$$i = s, \ k$$

where

x_h is h production variable
y_{hi} is h export variable on market i. In general, there are two export variables.
By s we denote exports to socialist and by
k exports to the non-socialist countries.
z is the home sale of product h
R_h is the change in stocks of product h.

The second type of equations characterizes the bottlenecks of the enterprises, the utilization of capacities.

$$\sum_{h=1}^{m} x_h g_{ht} \leq G_t \tag{2}$$

$$h = 1, \ \ldots \ m$$
$$t = 1, \ \ldots \ T$$

where

g_{ht} denotes the claim of production x_h from capacity t,
G_t is the capacity constraint t. Under capacities we understand real equipment as well as other limited resources, like labour, or some kind of skilled labour, etc.

The third type of equations describes the foreign demand, both in the socialist and non-socialist markets. If sales might be increased by reducing prices, we include several variables for each product resp. market.

$$Y_{hi} \leq P_{hi} \qquad h = 1, \ \ldots \ m \quad i = s, \ k. \tag{3}$$

where

P_{hi} is demand for product h on market i.

The fourth type of equations describes the upper bounds of home demand. If sales might be increased here, as it was mentioned before, by reducing prices, we include several variables for each product, too.

Home demand for product h consists of two elements: on one hand, the demand of enterprises included in the computation and, on the other hand, the demand of the outside world. In the course of the enterprise level computations, the demand for commodity h of the given enterprise j by the other enterprises included in the model is taken into account considering the latest information.

$$z_h \leq D_h^x + \sum_{\substack{r=1 \\ r \neq j}}^{n} \sum_{\substack{k=1 \\ k \neq h}}^{m} \bar{x}_{rk} d_{rh} = D_h \tag{4}$$

$$h = 1, \ \ldots \ k, \ \ldots \ m$$
$$j = 1, \ \ldots \ r, \ \ldots \ n$$

where

D_h is home demand for product h
$D_h^{\times}$ is demand for product h from outside the model
d_{rh} is the input of h for the production of x_{rk}
x_{rk} is production of commodity k in enterprise according to latest information.

If product h is also available from imports and imports are free, a supplementary investigation is required. Sales of the home product are only possible, if they are cheaper than the imported commodity, hence

$$\text{if } p_{jh} \geq \bar{q}_{hi}(\lambda_i + \mu_{hi}) \text{ then} \qquad (h = 1, \ldots m;$$
$$w_{hi} \leq E_{hi} \text{ and } z_h + \sum_{i=s,k} w_{hi} \leq D_h \qquad i = s, k) \tag{5}$$

where

p_{jh} is the home price for product h
q_{hi} is the import price of product h on market i
λ_i is the exchange multiplier (exchange rate) on market i
μ_{hi} is the import duty on product h on market i
w_{hi} is the import of product h from market i
E_{hi} is the import supply of product h from the market i

P_{hi} and D_h, treated in general as upper bounds, determining the export and home demand, might be obligatory home or export sales prescribed by the central agencies (Z_{hi} or H_i). In these cases, instead of inequalities, equalities are figuring in the model.

If exports are to be licensed and the foreign demand is larger than the licensed quantity (Δ_{hi}), the upper bound of the enterprise model is the licensed quantity.

In the course of supplementary computations, if the competitive import demand exceeds the licensed quantity of imports (E_{hi}), the latter will be taken as an upper bound.

The most general form of the enterprise preference function is the vector of profits. Its elements consist of the difference between returns and expenditure.

$$\sum_{h=1}^{m} \sum_{i=s,k}^{m} y_{hi} q_{hi} (\lambda_i + \nu_j) + \sum_{k=1}^{m} z_h p_{jh} - \sum_{h=1}^{m} x_h \vartheta_h - \Theta_j \pm N_j \rightarrow \max \tag{6}$$

where

q_{hi} is the export price for product h on market i
λ_i is the exchange multiplier (exchange rate) on market i

v_j government compensation (export subsidy) for the export of enterprise j
p_{jh} home price for product h*
ϑ_h variable costs of product h**
Θ_j constant costs of enterprise j**
N_j production tax (−) price-equalization (+), subsidy (+) for enterprise j

According to the existing rules, stimulation of employees and workers to increase profits is indirect, through the increase of the profit-sharing fund, more precisely, through the ratio of the latter to the total amount of wages and salaries. The profit sharing fund is calculated by a complicated formula, consisting of the profit and the wages and salaries themselves, as well as four supplementary items:

— the capital/labour ratio corrected, in order to equalize the incomes, by a coefficient (wage-multiplier) varying by industrial branches;

— the graded progressive taxation of the profit sharing fund; $f(\alpha, \beta, \gamma)$;

— the special regulation of the enterprise average wage; as the increase of the average wage — which has to come from the profit sharing fund — is taxed identically with the latter;***

— and the regulation affecting the distribution of the profit sharing fund among the three categories of workers and employees. The latter are centrally divided into three categories; for each category the maximum profit sharing/wage ration and, in the same way, the distribution of the fund itself is determined.

For the sake of simplifying the already too sophisticated formula, we introduce a new production-sale variable: x'_{hi}, expressing the production and the sales of product h on market i. Among the markets here the home market (b) is also included, therefore, we have three markets.

Thereafter we formulate the alternate objective function of the enterprise:

$$(7) \qquad \frac{\sum_{h=1}^{m} \sum_{i=s,k,b.} [x'_{hi}\varrho_{hi} - \Theta \pm N + \Xi]\,[\sigma(L + \sum_{h=1}^{m} x_h l_h)]}{[\sigma\tau(L + \sum_{h=1}^{m} x_h l_h)] + M} f(\alpha, \beta, \gamma) = \max$$
$$Y + \sum_{h=1}^{m} x_h l_h v_h$$

* If that is a centrally fixed price, or the central price limit has been reached, the price is denoted by π_{jh}

** The major part of costs consist of centrally fixed prices for inputs, taxes and interest rates. Therefore, they are treated in the model as economic regulators.

*** An additional regulation temporarily excludes a rise of the average wage exceeding 4 per cent.

where

ϱ_{hi} denotes the net accountable return of product h sold on market i (the net accountable return is equal to return from the sales on market i minus variable costs plus variable costs due to the increase of the average wage)

N production tax (—) price equalization (+), subsidy (+) for enterprise j

Θ constant cost of the enterprise

Ξ constant cost due to the average wage increase

σ fixed average wage

L constant manpower demand

l_h variable manpower demand of product h

τ wage-coefficient

M stock of fixed and working assets

Y constant wage costs corrected by the maximum of the profit sharing fund each category

v_h variable wage cost of product h corrected by the maximum of profit sharing fund each category

α accountable profit $\sum_{h=1}^{m} \sum_{i=s,k,b.} x'_{hi}\,\varrho_{hi} - \Theta \pm N + \Xi$

β actual staff multiplied by the fixed average wage $(L + \Sigma\, x'_h\, l_h)\,\sigma$

γ the system of graded progressive taxation

Model of the national economy

The model of the whole economy consists of the total of enterprise models characterized above as well as of the system of central conditions. Let us assume, in order to understand the model of the centrally planned economy, that enterprises are specialized in a way that every enterprise produces something else and that they do no deliver to each other. In that case every enterprise is a block in the model. The enterprise-blocks are connected with each other by the common use of the central resources like manpower, the most important materials, fixed and working assets, foreign exchange etc. The use of these resources is not limited in the enterprise model, but is regulated by a fixed price, which is calculated among the costs in the preference function.

In order to adapt our model to reality, we have to represent in it enterprises manufacturing identical products, i.e. which are competing with each other. We have to express the interrelations among enterprises, as well.*

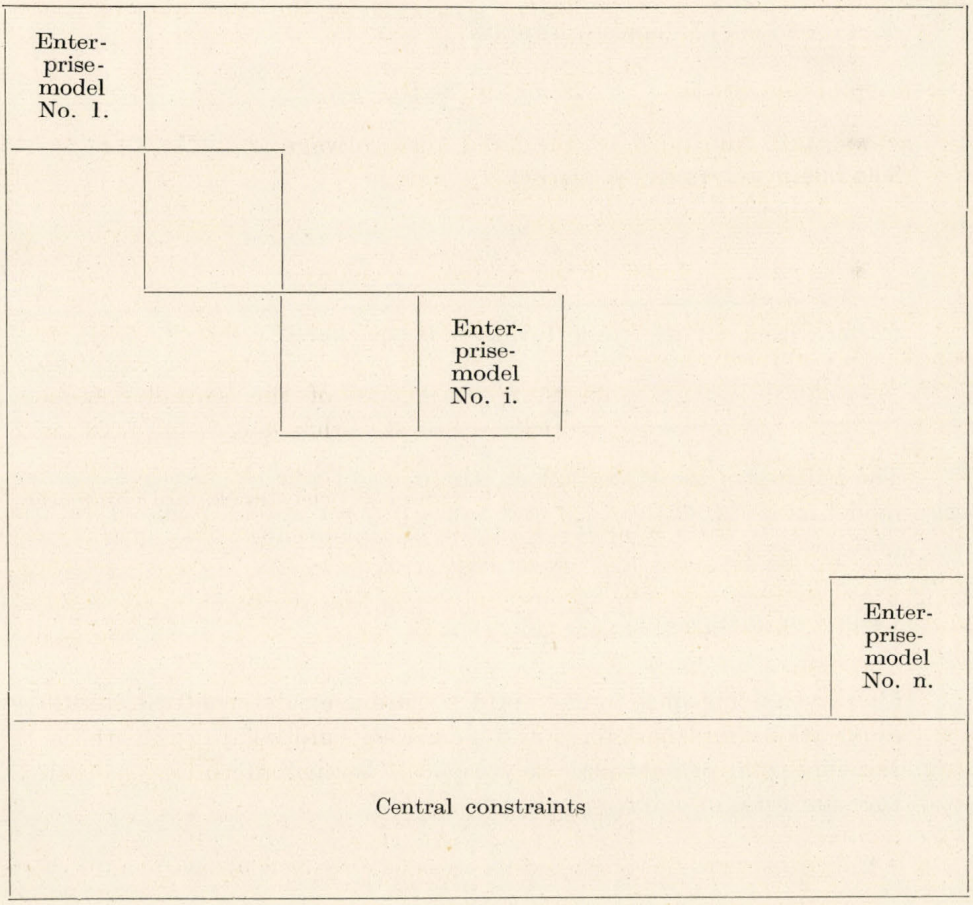
* For the sake of simplicity, we neglect trading enterprises working on the basis of independent interest in profits.

(See graph.) Thus the aggregate of the enterprises forms a complicated system but the basic properties of the system rest identical with those of the former, simpler solution.

There are two important questions in such a model for the centre. First, what quantity do the enterprises request from the central resources (manpower, the most important materials, fixed and working assets, foreign exchange etc.); secondly, to what extent do the enterprises supply the economy outside the model.

In every centrally planned economy, the economic plan is drawn up in order to clarify these question. The plan consists of two parts; on the one hand, it determines the available central resources, on the other hand, it weighs up the quantity of goods and the commodity-mix to be delivered by

A model of the economy



the enterprises to achieve the central economic objective. In the framework of a centrally planned command system, the center determined for enterprises the allocation of central resources (investment-funds, manpower, the most important materials etc.), as well as the delivery obligations. At present, in the framework of and in accordance with our new mechanism, this is not done in our model by the center. Instead the center introduces economic regulators in the expectation that under their impact the plan — which may be called a central economic expectation — will be fulfilled to a sufficient degree.

In accordance with the above description, this model of the whole economy summarizes the utilizations and deliveries — the inputs and outputs — of central resources from the enterprise models. Hereupon the total amount will be compared with the central expectations, looking for the degree of correspondence.

The central expectations and the suitable notions in the enterprise models are as follows:

Certain items of domestic supply

$$D_h \text{ or } \sum_{jh \ni I_h} D_{jh}$$

The balance of trade on market i

$$\sum_{j=1}^{m} \sum_{h=1}^{m} y_{jhi} - w_{jhi}$$

Certain items of the trade turnover on market i

$$\sum_{jh \ni I_h} y_{jhi} - w_{jhi}$$

The balance of the state budget [the items of which figure in the enterprise model as costs: duties (μ_{hi}) and taxes (N_j) or special items of returns like subsidies (ν_j)].

Claim on manpower $\sum_{j=1}^{n} \sum_{h=1}^{m} x_{jh} l_{jh} + L_j$

all personal incomes (wages profit sharing funds) justified enterprise applications for short-term and long-term credits;*
the sum-total of enterprise development funds;*
the sum-total of enterprise reserve funds.*

* The values for the adequate notions are in all cases computable from the enterprise models.

In order to stimulate the fulfilment of central economic expectations the centre uses two kinds of regulators; the first kind is of a price-type, the second one of the type of quantitative restrictions.

Regulators of a price-type

taxes and duties on wages, social insurance contribution;* charge for the use of funds (interest rate) interest on working assets;*

production tax of enterprise $j(-N_j)$. Government aid to enterprise j (price-equalization or subsidy) $(+N_j)$.

Exchange-multiplier which works as an exchange rate (λ_i);

government compensation for exports (subsidy) (ν_{ji}); customs duty on product $h(\mu_{hi})$;

wage-coefficient of enterprise $j(\tau_j)$;

graded progressive tax of the profit sharing fund $(f(\alpha, \beta, \gamma))$; fixed average wage of enterprise $j(\sigma_j)$;

maximum price for product j of enterprise h; (π_{jh}) tax on the development fund;*

the share of the enterprise amortization fund left with the enterprise;**

the share of enterprise profits going obligatorily into the reserve fund;**

value for the correction of the amortization, given to enterprise j by the state budget, or reserved centrally;**

Quantitative restrictions or instructions as regulators

Export licence for product h on market i (Δ_{hi});

import licence for product h on market i (E_{hi});

obligatory task for supply of the domestic market (Z_h); obligatory export-target (H_{hi}).

Quantification of the model and a series of computations to be performed

After having formalized the regulators and the behaviour of both the central agencies and the enterprises in the new system of economic management in a theoretical way, we have to concentrate our attention to the quantification of the model.

We are trying, on the initiative of the Ministry of Finance, to quantify the possibilities for economic activities of about 240 industrial enterprises.

* The values for the adequate notions are in all cases computable from the enterprise models.

** These items are calculated among the costs.

We intend to construct the model for the whole economy from these enterprise models. For the sake of simplification, we are going to identify those 240 enterprises and their interrelations as well as their relations to the exterior world with the economy as a whole.

As a first approach, this model of the whole economy will be utilized for forecasting. We assume that the enterprises are some kind of automatic reactors, choosing from among the economic possibilities those judged to be the best ones by their own system of preferences, i.e. those assuring the biggest profit, respectively, the biggest profit sharing fund. The sum total of such enterprise activities will be equal to the entirety of economic processes taking place in the whole economy.

We want to utilize this forecasting model for three purposes: first, we are going to examine how the enterprises would react — were they indeed functioning like automatic reactors — under both the known and quantified conditions of the economic environment, and the impact of the economic regulators. The diverging impact of the objective functions maximizing the profit and the profit-sharing fund might be of special interest for the investigation.

Secondly, we intend to examine to what extent are the results of the assumed behaviour of the enterprises in accordance with the plan for the national economy, resp., what changes are required in the regulators in order to arrive at the necessary agreement. In this sense, we are aiming at a better correspondence of the results computed from enterprise models with the central expectations through changes in the central economic regulators, by applying the method of trial and error.

In the third place, we are looking for an answer with the aid of the model to the question to what extent it is possible to increase efficiency from a macro-economic point of view. That means that the model of the national economy derived from the enterprise models is being treated as an entire model of linear programming. Here we ignore the preference functions of the enterprises. As central constraints for the model summarizing the enterprise models with their constraints, the above-mentioned central expectations are taken. We may look for efficient solutions of the whole model by using several objective functions like an increase of the balance of payments, a higher degree of satisfying the final demand, or savings from the central resources (manpower, investment etc.), or any combination of the above-mentioned objective functions.*

As a first result of our investigation, we shall be able to compare efficient economic activities of the model derived from enterprise preferences with

* This model type is similar to the so called two-level planning model of J. Kornai [1]. The ideas of the two-level planning gave certain impetus to the investigations here described.

efficient solutions of the model of the national economy. Secondly, we may examine to what degree the price-type central economic regulators correspond with the shadow prices for central resources.

The model of the New Economic Mechanism and reality

Hitherto, our investigations have been based on two important assumptions. We assumed that enterprise activity is unambiguously determined by the maximization of the enterprise profit or the profit sharing fund. We assumed, too, that the economic and technological data of the model are correctly expressing the economic situation, the realistic possibilities for decisions confronting the enterprises.

This is, indeed, only an initial stage of our inquiry. It is our second aim to check these very assumptions very thoroughly through further examinations. The latter will be due after having carried out the programming calculations and when the program period will have passed.

First of all, we intend to check, to what extent the informations on the economic environment of the enterprises differed from the actual situation. The difference might have been caused by:

— a change in the economic environment between the construction of the model and the final date of programming;

— the structure (aggregation, linearity, etc.) of the model or mistakes made by the constructors of the model having disturbed the correct expression of reality;

— the central agencies in charge of model building having been misled by the experts of the enterprise, — because of real or assumed enterprise interests.

We wish to relate the economic parameters of the model to reality by a comparison of the actual *(ex post)* statistical data with the data in the model.

In a similar way, we intend to check the data concerning the upper bounds (constraints) for the activities included into the model. Finally, the causes for the differences in detailed items will be found out by a mass questioning of the experts.

The next step will be the construction of a new *ex post* programming model relating to the past period. The exogenous data of the latter will be based on fact figures. Thereafter, we are going to look for the solution assuring maximum profit for the enterprises in that model. We think that the mechanism is functioning efficaciously only if the solution corresponding to the enterprise preference function and the actual solution are by and large coinciding. The size of the deviations will answer the question, to what extent are certain circumstances hindering the development of the economic mechanism. The

deviation of the results of the *ex post* program calculations from the actual facts will, according to our view, show that the enterprise activities have not been unambiguously determined by their assumed preference function. In this respect I consider that the enterprise, resp. their managers have been influenced also by other factors than the increase of profits.

Such targets may be the increase of the profit sharing fund, even at the expense of the sum of profits or else the fulfilment of the expressed, or only imagined wishes of different government, party and social bodies, as well as the realization of such concepts of enterprise managers which are not or not fully in accordance with the maximization of the enterprise profit.

Targets differing from the increase of profits may be, e.g., the following:

Under the pressure of higher instances:

— an undisturbed supply of the domestic market,
— an increase of exports into socialist countries,
— an increase of exports into non-socialist countries,
— full employment of the manpower at the enterprise.

According to concepts of the managers of the enterprise:

— the increase of the profit sharing fund at the expense of the sum of profits;
— conservatism, i.e. the preservation of the structure of output and sales;
— the realization of development plans, contradicting the volume of profits.

Production and sales structures, corresponding to the trends of thought influencing the enterprise activities, are mostly quantifiable. This makes it possible to carry out experiments to what combination of a profit-increasing program and the above-mentioned programs is the actual production and sales structure the closest.

This, however, can only be a subsidiary method. For a stocktaking of factors other than profit-interest, influencing enterprise activities, mass questioning seems to be the most suitable. Thus, it is possible to get a detailed explanation for the deviations between the optimum solution of the enterprise preference function and the actual solution. An analysis of the situation and interrelations of enterprises and central agencies carried out in the above-mentioned way, may answer many important questions. The analysis may enable us to recognize the quality of information central agencies may obtain on the economic environment, better to understand the behaviour of enterprises and their reactions to the central regulators, resp. their modifications

Some properties of the formalized model of the New Economic Mechanism

The economic model here briefly outlined is a specific model. It is a more or less adequate formalization of the new Hungarian economic system. The reader versed in the questions of programming will easily recognize that it is very similar to a programming model divided into enterprise units. If we disregard the system of central regulators, this model and the linear version of the competitive-equilibrium model simplified by Dorfman–Samuelson–Solow, well known from the literature, are closely related. Hence, a comparison with the latter gives a favourable possibility for a sketchy characterization of the formalized model of the new economic mechanism.

The competitive-equilibrium model is a model consisting of partial units (enterprises), proved to have under certain conditions a solution, which is optimal from the point of view of both the enterprises and the national economy.* This optimum solution is accompanied by prices leading automatically to the equilibrium of supply and demand. These prices are in all partial models uniform and are equal to the marginal costs of the products, to the marginal productivity of resources [2].

The differences between the abstract model of competitive-equilibrium and that of the new Hungarian mechanism are demonstrated primarily by four factors:

– The first is owing to the fact that while the prices of central resources are uniform for all sectors in the competitive equilibrium model, in the model of the new economic mechanism they differ frequently for many of the central resources, especially for foreign exchange for different enterprises, etc.

– Secondly, the uniform prices for products in the competitive equilibrium model assure that every producer arrives at a profit at these prices, or at least does not suffer losses, whereas the model of the new system of economic management is able to achieve this only by subsidies, or by a redistribution of the profits among enterprises, or else by price-mixing.

– Thirdly, the centre regulates production and utilization not only by means of prices.

– The fourth, and perhaps the most important difference lies in the objective function of the enterprise itself. In the competitive equilibrium models the objective function of the enterprise is either of the type minimizing costs or maximizing returns or, finally, maximizing the difference between returns and costs, i.e. of profits In the model of our economic mechanism, the maximization of the profit sharing fund of the wage-earners represents a system of preferences at least equal to that of profits or, taking into consideration its impact, an even stronger one. At the same time, account has to be

* Under optimum the Pareto-optimum is meant.

taken of the fact that in every case where a part of the incomes of wage-earners has been made dependent on the profits of the enterprise, the increase of the profit sharing fund, a piece-wise quadratic fractional function, becomes the enterprise preference function. In our actual case, as mentioned before, the enterprise objective function is a rational fraction, with quadratic variables both in the numerator and the denominator and expressing also a graded progressive system of taxation.

What is then, after all, the difference from the economic point of view between the abstract model of the new economic mechanism and that of competitive equilibrium?

The first difference lies in the fact that the Hungarian mechanism does not evaluate the resources of the national economy in a uniform way for all enterprises in this model.

Moreover, even a given enterprise passes different judgement on the resources in connection with different business transactions. If, e.g. in the abstract model of our mechanism the foreign exchange multiplier (exchange rate) is 60 Ft per dollar and there is a possibility to earn one dollar with inputs of 61 Ft, then enterprises not receiving state compensation (export subsidy) will refuse it, whereas others are going to accept it gladly, as the state compensation makes such a transaction profitable for them.

If an enterprise is receiving state compensation (export subsidy) and has the choice whether to increase its production by export activities or by import substitution, it will choose the export transaction, even if the economic efficiency of the latter is worse, etc.

The introduction of differentiated rents may naturally make sense. Several economic investigations proved that in the case of increasing returns, an economic equilibrium can be achieved only through differentiated rents. Nevertheless, that consideration justifies the differentiation of prices and rents for such specific purposes only, and not in general.

The second group of differences manifests itself in the fact that the productive enterprise manufacturing a product under the most favourable conditions is not sufficiently stimulated to expand production and consumers of the same product are less interested in thriftiness, than the producers with the worst results in an increase of their activities. In both groups of differences, at least under the conditions of the abstract model of the mechanism, the system of regulation disturbs rational decision, the formation of an optimal structure of production and realization.

The third group of differences is due to the circumstances that in the regulation system of our economic mechanism there are also direct quantitative regulators beside the prices. The maintenance of quantitative regulation in a certain sphere does not seem unjustified on the basis of economic examinations. Without them, it is impossible to fulfil the central expectations.

In so far as we insist upon the central determination of the parameters of production activities, we need, even in a competitive-equilibrium model other regulators than prices, too. All this justifies only the use of direct regulators, not the actual degree of their utilization in the economy.

Finally, we have arrived at the fourth group of the differences between the two models; to the impact of the maximization of the profit-sharing fund, which is a specific enterprise preference function. First, every system of management which determines the participation fund on the basis of wages paid and the profits realized, using some formula, has the common feature that, contrary to the competitive-equilibrium model, it cannot assure the uniformity of the marginal productivity of the resources both in sectors or enterprises and at the central level. Were the profit-sharing fund calculated exclusively on the basis of the profit/wage relation, we had to face the following problem: we should have to evaluate the activities of the enterprise — though useful from the point of view of the national economy and even increasing enterprise profits — as unfavourable from the point of view of the profit-sharing fund in every case when the ratio of the increments of both profits and wages start to decline. Secondly, another specific problem arises in case not only wages but also assets are playing a part in the calculation of the profit-sharing fund since the marginal productivity of central resources will differ by enterprises owing to differences in the wage/assets ratio. Thirdly, if the creation of the profit-sharing fund is intended to be used for the regulation of average wages, this means that, because of the enterprise objective functions, the model will not converge towards an equilibrium solution. This will lead to a situation that, depending on the wage/assets and the profit-ratio, certain enterprises will renounce even on profitable transactions, while other ones will gladly accept business activities connected with losses. A further feature of this situation is that the same business offer will be realized with pleasure by one enterprise and rejected by another.

There are, in general, three ways for solving the stimulation of enterprises:

1. Not to connect incomes of wage-earners of the enterprise directly with the results of the latter. In this case, the enterprise objective function will not influence convergence of the model. A similar situation arises, if only incomes of the managing personnel depend modestly on profits.

2. To relate incomes of wage-earners of the enterprise to the total wage bill, or to the sum-total of wages plus assets.

3. To make the enterprise profit-sharing fund depend on the assets and wages, and, at the same time use it as a general regulating tool of incomes, as done in our system of regulation.

The shortcomings of the second and third solutions have already been mentioned. Against the first solution, we can only say that here the material

incentives for the staff employed by the enterprise are not directly dependent on the accomplishment of the enterprise. This system can be efficacious only if the results of the enterprise have a social significance equal to a moral recognition and if the state agencies controling the enterprise and fulfilling the functions of the proprietor, have a sound judgement and sufficient standing to be able to allot bonuses from the profits to the enterprise staff without stipulations, but nevertheless fostering the interests of the national economy.

Were it possible to fulfil conditions, another, not yet discussed problem of the system of incentives would come to a solution. The tasks of management are usually aimed at laying the foundations for the future of the enterprise. Hence, it is not right to make their incomes dependent on the results achieved at the moment. Not to mention that a favourable result now achieved may be contradictory to the long-term development objectives.

Beside the above-mentioned four main differences, there is another basic difference between the two model systems. The system of the objective function is easy to survey in the profit-maximizing competitive-equilibrium model. Whereas the complicated objective function itself limits the review of the abstract model of the new economic mechanism. The complicated objective function means that the managers of the enterprises are in a difficult position, if they want to choose from among alternate development possibilities, in the course of decision making, from the point of view of the profit-sharing fund.

Concerning the differences between the model of our economic mechanism and that of the competitive-equilibrium, we have to know that the ideal world of competitive-equilibrium exists only as an abstraction.

In reality, the conditions of an economy are much more complex than in the model where competitive-equilibrium prevails. There is no such market economy, where enterprise-level and national economic optima would coincide in the manner described above, nor where equilibrium prices come into being in the way we outlined. The conditions of the competitive-equilibrium model, most alien to reality are as follows:

— the principle of diminishing returns;
— the divisibility of resources;
— the unequivocal enterprise preferences.

Further on, it is well known, too, that in the linear model of competitive-equilibrium the price system does not determine the optimal activities in a unique way but that there may be alternate optima.

Hence, this comparison does not enable us to consider the system of regulations introduced as an unfavourable one, owing to the above differences.

It is certainly justified to diverge from a system of regulations which is in accordance with the competitive-equilibrium model, if we thereby eliminate the shortcomings of the latter. But it seems, that certain specific features of our system of regulation do not tend to eliminate factors disturbing equilibrium.

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МОДЕЛЬ ПОВЕДЕНИЯ ЦЕНТРАЛЬНЫХ ОРГАНОВ И ПРЕДПРИЯТИЙ

М. ТАРДОШ

Система регулирующих мер экономического механизма, введенного в Венгрии в 1968 году, строится на сложных и разветвляющихся предположениях:

— Предприятия являются самостоятельными хозяйственными единицами, самостоятельно определяющими структуру своего производства и сбыта.
— Центральные органы не дают распоряжения предприятиям или же дают их лишь в исключительных случаях.
— Структура производства и сбыта определяется предприятиями в соответствии со своей системой преференций.
Основа системы преференций — увеличение массы прибыли преприятия. Из прибыли финансируется развитие предприятия и производится материальное поощрение его работников. Рост прибыли предприятия и достижения наиболее благоприятной величины фонда распределения, выплачиваемого работникам предприятия, считается тождественной целью.
— Предприятия, освободившиеся в новой системе управления от воздействия директив, легко приспосабливаются к внешним и внутренним рыночным условиям.
— Центральные органы могут формировать экономические регулирующие меры таким образом, чтобы под их воздействием предприятия были заинтересованы в выполнении народнохозяйственного плана.

Автором сначала описывается и характеризуется модель, формализующая систему регулирующих мер в новом экономическом механизме. Затем он детально представляет методы анализа и расчетов, при помощи которых предусматривается изучать отклонение действительного поведения центральных органов и предприятий от предпологаемого.

При этом исследуется, какими информациями о положении предприятий и об их ожидаемых экономических реакциях располагают центральные органы, когда они — путем изменения регулирующих мер или же непосредственно — вмешиваются в хозяйственную деятельность предприятий. Кроме этого предусматривается проанализировать, при помощи каких иных прямых и косвенных мер воздействуют центральные органы на деятельность предприятий, помимо регулирующих мер, введенных реформой экономического механизма.

Другой аспект анализа состоит в изучении поведения предприятий. Здесь исследуются руководящие мотивы принятия предприятиями различных решений. При этом рассматривается, насколько согласованы стремления к максимизации прибыли и максимизации фонда распределения с общими принципами, или какие конфликты порождаются. Исследуется также, какие другие предпостепения — кроме максимизации прибыли и фонда распределения, — и в какой мере влияют на принимаемые предприятиями решения.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 37—49 (1969)

I. HUSZÁR

ON LIVING STANDARD POLICY IN HUNGARY*

Living standards must not lag behind the growth of national income for some longer period. A raising of the rate of accumulation beyond an optimum will lead to diminishing efficiency and rate of growth and will react also on the level of living. In the last decade increased efforts were made in Hungary to work out a complex and consistent system of living level policies. The fundamental principle is not to allow to stagnate or deteriorate the living standards of any major group (stratum) in society; further that the rise in living standard must be palpable, that is, the lower limit of growth is given.

The changes in the living conditions of the population, the rise in welfare, the contradictions, troubles, lags and possible setbacks in general development, the means and methods to cope with these difficulties, and, in general, the question how economic development can serve the raising of living standards have always been topical problems of political, social and economic progress.** The subject may, in other words, be defined as the living-level policy of the Party and the Government, and its realization. Analysis of living-level policies — meaning the fundamental objectives of raising living standards, the ways leading to this objective as well as the major means and methods of its implementation — does not belong to the "neglected" spheres of economic research in Hungary. Hardly a month elapses without a publication — study, book, or statistical analysis — on the level of living or its major elements. In these the most diverse — partly contradictory — opinions, evaluations and statements are put forward but the contradictory views are not confronted with each other, the differences in opinions are not cleared up and the discussion is not summarized.

Though many researches and publications deal with living-level policies, the statement may be ventured that the living conditions of the population of Hungary are not sufficiently known. In some fields even the methods of examining the living conditions are deficient. It will be expedient to put it down

* Based on a lecture delivered at the 1968 scientific session of the Hungarian Economic Association.

** In drafting the study, the author has relied on the research work of a panel engaged in the analysis of manpower and living-level problems in the framework of the preparation of Hungary's 15-year plan.

right at the beginning of this paper that in the author's opinion the living level should be correctly interpreted *as the entirety of the living conditions of the population*. According to this concept, when analysing the living level or formulating living-level policies, the following elements should be considered: consumption (in its entirety, including consumption of both material goods and services); income relations of the population; housing and the supply of public utilities; demographical factors and employment; education; entertainment; vocational training and the health service. But the question forms also part of the subject, what part of income is spent on the population's own initiative on the purchase of goods and services, and what part is bound to be spent on pre-determined consumption. Further, it is hardly permissible to treat the whole population as one single conglomerate; it is important properly to survey the differences and divergences between the individual strata, the socio-economic groups, occupational and income categories, or the population of individual geographic or administrative units. These factors of the living level, which are mentioned only for the sake of example but which are perhaps the most important ones from the point of view of economic planning and economic policy, can be relatively well determined in quantitative terms. The so-called qualitative components and their changes do not lend themselves so easily to analysis, nor those social and political motives which are the most difficult to quantify but whose role may at times be of determining character from the point of view of living circumstances, and which are, in our opinion rather neglected when formulating economic policies. No economic policy, nor any living-level policy as part of the former, can be successful without taking into account correctly the socio-political interrelations, the qualitative factors. When evaluating or formulating living-level policies, the state of the social "feeling" and the changes therein are essential. The latter are influenced by past circumstances of development and also by its future prospects. A stagnating level of living may cause bad feeling even on a relatively higher level and conversely, the population may judge living conditions to be good even on a lower level of living and supply, provided that it is continuously and evenly rising, with encouraging future prospects. The qualitative factors also include the choice of goods, labour conditions, the possibility of choosing and changing employment, the interrelations of the different social strata, etc.

In the analysis of the living conditions of society and population, economic research — and other branches of the social sciences may be included as well — has not yet reached the peak. The results are rather significant in some fields which may be considered as partial according to the above defined concept of the living level, but attempts at a comprehensive discussion are less numerous. In fact, the survey and summarization of the living conditions, and of the living level, its synthetization enriches our knowledge and calls the attention to many interrelated and hitherto insufficiently treated problems.

The three starting points of the analysis

A short study like the present one can, of course, not make any successful attempt at such summarization. Instead, it may call attention to a few interrelations which are, in our opinion, fundamental.

Living-level policies may, as a matter of fact, be judged by starting from three different analytical points of view:

a) One may study the Party and Government decisions and documents relating to this subject and made in the period of socialist construction;

b) the process of change in the living level may be analysed, or

c) an attempt could be made to establish a system of requirements conforming to the country's political, social and economic situation as well as to the objectives.

It is not impossible that the three approaches should lead to the same results, particularly if in applying one of them, the other two were to some extent also observed. In the formulation and evaluation of living-level policies, that method promises best results which stresses the comprehensive and critical analysis of the processes which have taken place in this country.

Since the country's Liberation in 1945, during the period of socialist construction and as a result of it, substantial achievements have been reached in improving the living conditions of the population. The mass poverty of the prewar period has been abolished, full employment realized, security of existence created for all. This has been served by such measures as the almost general coverage of the social insurance system, the development of the system of old-age pensions and other measures of social policy. Consumption has considerably increased and its pattern developed in a favourable direction. No doubt, this *development is the most brilliant result of socialist construction.*

However, development was burdened by many deficiencies and contradictions. To know and disclose them is a condition for being able to set correct objectives for long-term living-level policies. The period in our development when, in the first half of the 'fifties, the raising of national welfare was always part of the decisions and ideas of economic policy, of long-term economic planning and of the various variants of the first five-year plan, is still well remembered and instructive. Practice was, however, different. Between 1950 and 1953 the living level did not rise, it actually fell considerably. Even in consideration of various factors of foreign and domestic policy it can be established that — particularly in this initial period of socialist development — there was no living-level policy embracing the whole of the living level and determining its elements in a consistent system worked out in detail. To put it in another way: *beyond the most general — often commonplace —*

formulation of the social, political and economic objectives no, or hardly any, well-founded strategy existed to change the conditions of living. In lack of this not even the plans fixing long-term targets could provide a firm foundation for continuous action and tactical measures. The mainly *ad hoc* measures taken to modify or influence the level of living were dominated by subjective, voluntaristically decided and often specious political and economico-political motives. It was inevitable that efforts in attaining some objective taken out of context should often hinder or exclude the attainment of others. This circumstance will lead to social and economic contradictions and sometimes to their deepening, particularly when the level of living is rising slowly or with fluctuations — as it happened more than once in this period of the country's history.

The living level — above all the growth rate of consumption — is determined fundamentally by the growth of national income. It follows that the main explanation of the above problems can be found only in the relatively slow average growth rate of national income. Between 1950 and 1965 the average annual (compound) growth rate of national income was 5.1 per cent. Though this is substantially higher than the rate achieved before the war, it is lower than the rate achieved in most European socialist countries. In fact, even the growth in some capitalist countries exceeded this rate.

Consumption rose annually by 4 per cent on average. One per cent increase in national income induced thus an increase of 0.8 per cent in consumption on annual average. (Between 1950 and 1955 this ratio was 0.7 per cent.) On the basis of this comparison of the growth rates in national income and in consumption it can be established that in the fifteen years under review the growth in consumption lagged behind that in national income. In other words: even in consideration of the extreme fluctuations between 1950 and 1957, the ratio used for accumulation increased. *This increasing ratio of accumulation has not accelerated economic development and did thus not act towards raising the level of living.* Within accumulation, the extent of the growth in inventories (stocks and investments in process) was extremely high. The construction period of productive investment projects was unduly long. The economic efficiency of the capacities created by investment turned out to be lower than foreseen in the plans. The situation was aggravated by the fact that even with the high investment rate the share of investments directly affecting the living level of the population — mainly housing — was low. The growth rate of the economy has been maintained — instead of raising the efficiency of investments — by increasing the volume and the rate of them, that is, by increasing the rate of accumulation and by relatively reducing the rate of consumption.

The fluctuations in the growth rate of national income, the frequent changes in the rates of accumulation and consumption have affected also the

development of the living level. In the first half of the period beginning with 1950 the level of living strongly fluctuated. The then prevailing economic policy considered consumption fundamentally as a sacrifice brought in the interest of production and development and endeavoured to remedy the troubles in economic equilibrium to the detriment of the living level, mainly by a deliberate restriction of demand, of consumption. One of the greatest achievements of economic policy after 1958 is, from this point of view, that in spite of the fluctuations in economic growth — which were also smaller than earlier — it aimed at securing an even growth of consumption and has essentially succeeded in this task. From the negative experiences of the first half of the period and the positive ones of the last years, the following conclusions may be drawn.

The level of living cannot be lastingly separated from the growth of national income. There is no rule of economic development stipulating that accumulation must always grow faster than consumption. The raising of the accumulation rate beyond a certain optimum leads to decreasing efficiency and will not serve either economic growth or the raising of the living level.

In the next years economic policy in Hungary cannot aim at raising the proportion of the accumulation fund since the shortcomings are showing themselves rather in the field of consumption. (The growth rate of consumption cannot diverge, in the long run, from that of national income, even in the opposite direction.)

It should be clear that in case of a balanced social and economic development, the economic administration's freedom of decision in shaping consumption and the level of living is restricted. *Any keeping back of the level of living — in respect of any of its important elements — and particularly its reduction, will become a source of grave socio-economic contradictions and political evils.* Therefore, the fluctuations in accumulation and in consumption must be judged differently because each have different consequences. Central economic management must make efforts at eliminating, by means of reserves and other measures, the unfavourable consequences of factors that can be considered as accidental from the point of view of planned control.

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Utilization of the consumption fund of national income is fundamentally determined by the income policies connected with the social allocation of labour. The changes in and the composition of the income of the population can and should be analysed by means of different approaches. (Income in money and in kind, personally disposable income and income with pre-determined destination, income depending on and independent of work, etc.) A picture of our income policies can perhaps be best drawn by analysing the distribution of income by sources.

The sources of income

Income is obtained by the population fundamentally in three ways:

a) from gainful activity, mostly in money;

b) outside gainful activity, or only indirectly connected with it, in the form of social benefits in terms of *money* as e.g. family allowance or pension, and

c) in the form of free or almost free social benefits, allocations in kind.

In the course of development after the Liberation, the share of income from work in total income has gradually decreased and that of income from various social benefits has increased. *In 1967, out of the total per capita income of the population 75.6 per cent was derived from work and 24.4 per cent from social benefits and allocations.* (It should be noted that the terms "benefit", or "allocation" are not quite precise, though they are generally used. As a matter of fact, these data comprise the income from work as "net" sums, that is, they show it net of the contributions to the social pension fund, and contain in full the incomes received as social benefits. In the original meaning of the word, in individual years the sum of the pensions less the contributions can be conceived of as a benefit or allocation while in case of the individual persons the pension could be interpreted also as a rent bought with the contribution.)

About 40 per cent of income deriving from social allocations (9.4 per cent of total income) is paid out in money and 60 per cent (or 15 per cent of total income) are in kind. It will be worth-while to compare this form of income distribution with international experiences. Disregarding income from capital, and in the knowledge of the fact that comparisons of this type cannot be proved, it may be stated that the income of the population in advanced European capitalist countries derives to the extent of 71—80 per cent from work and the rest from social allocations. In the majority of the European socialist countries, especially in the USSR, the distribution is similar to that in Hungary. (The share of income from work is lower in the German Democratic Republic and Czechoslovakia, and somewhat higher in Poland.)

As regards the composition of income from social benefits, it is a characteristic feature that the share of income in money is greater almost in every country than in Hungary, while that of income in kind is correspondingly lower.

The sources of income are in contradictory position to each other. With a given total of income on the national economic level, the share of one source of income can be increased only at the expense of the others, while there are justified social requirements to raise all three types of income. The growing share of income deriving from social benefits does not, in itself, contradict

the principle of distribution according to work, nor does it offend the principle of material incentive. Undoubtedly, an important problem of economic policy in connection with incomes is to what extent does income distribution help in raising the productivity of labour, to what extent does it give a possibility to increase the efficiency of labour. In my opinion the statement may be ventured that even if these comprehensive internal proportions of income distribution had been somewhat different as regards their numerical value — and the deviation might have occurred in both directions — they would not have prevented the emergence of the now observable contradictions, and would have made it possible to apply a more effective system of wage payments. As a matter of fact, as regards the distribution of income between the members of a homogeneous social stratum or an occupational group, this will be shaped by three factors: the differentiation of earnings derived from work, the demographical composition of the family, i.e. the ratio between earners and dependants, further the system of extra-wage benefits. In this connection the actual income distribution is characterized by the following features: the incomes derived from gainful activity are becoming rapidly and strongly levelled out. In the initial period of socialist construction, in the early 'fifties, the wage system aimed at reducing the differences between earnings, partly to satisfy the demand for manpower raised by the rapid industrial development, partly to reduce the differentiation developed on the basis of capitalist relations of production and partly perhaps as a result of a highly simplified interpretation of social justice. For the sake of completeness it must be noted that the reduction of differences between earnings may be observed also in international dimensions, a fact that can be traced back to objective economic and social factors. These were at work also in this country. It seems, however, *that the Hungarian equalization (levelling) process went beyond the socially and economically correct and the objectively explainable measure, and unjustifiably reduced the differences between the earnings of those performing complicated tasks which need higher qualification and those needing lower qualification to the detriment of the former*. It is fundamentally this levelling of earnings that affects unfavourably the material incentive. The efforts at raising the productivity of labour, the strengthening of the socially useful mobility of the labour force, and, last but not least, the shaping of a correct social morale require that the differences between the earnings of workers of different performance, between the earnings of those performing responsible tasks requiring high qualification and those performing simpler and routine work should be greater than now.

On social benefits in kind

The tendency towards equalization of earnings and the level of social benefits established in Hungary — above all the benefits received in money —

brought it about that in the families belonging to various occupational strata, per capita income has become differentiated not by the occupation of the earners but rather according to the demographical situation of the family. The conclusion seems not too far-fetched that the incentive power of earnings differentiated depending on the social usefulness of the work performed can assert itself effectively only if the influence of the demographical factors was reduced. This clearly means *that from among the social benefits received in money the cost of keeping children and old persons, i.e. mainly family allowances, pensions and some other items of monetary allocation — should be considered rather the task of society as a whole.* In this case the effect of incomes determined by work performance could more forcefully assert itself in family incomes since families are consumption communities. Without a higher contribution to the keeping of family members who cannot be reckoned with as members of the labour force, the demographical factors can, indeed, counteract or neutralize the effect of the differentiation in income determined by the work done.

The problem of social allocations in kind cannot be judged so unequivocally. Obviously, these partly reduce the dispersion of incomes since the families with different incomes participate in them equally, but they may also increase the inequality of income distribution.

It is hardly debatable that *part of the social tasks cannot be successfully solved under a socialist system in any other way than with the aid of social benefits.* Such are, above all, the health service and public education. With the services securing the solution of these tasks, the principle of free benefits can be considered as essentially correct. I believe that the fact that demand for these services is uneven does not cause any social problems. There may arise two kinds of troubles:

a) the fact that these benefits are free does not restrict the demand for them,

b) when introducing or expanding such benefits, it must be weighed up — with a view to the above — to what extent can the demand be satisfied.

Therefore, whenever such social objectives are set too early and are intended to be solved as government responsibilities, but can, at the same time not, or only partially be solved, because of the actual state of economic development, without jeopardizing the attainment of economic, living level or other objectives, this may lead to social dissatisfaction.

These decisive and determinative elements of the social benefits in kind must be considered in a most circumspect manner mainly from the point of view of development. The established level must, on the whole, be accepted and, owing to social and technical progress, even some development must be

considered as natural and necessary. But the political, social and economic consequences of development must always be carefully weighed up. In my opinion the rising level of social benefits in kind is — in general — an irreversible process and the restriction of the basic benefits in kind would have particularly deep and grave political consequences.

In the field of the allocations in kind — and it should again be stressed that here mainly health and education services are meant — the uneven participation causes also fundamental social problems. In respect of the allocations in kind, the social contradictions would become accentuated if the claims were not differentiated right at the beginning. The fact about these services is that only the sick go to the doctor, and school services are used only by those with children of school-age, etc. Dissatisfaction and social tension arises fundamentally in the cases when the satisfaction of socially acknowledged claims must be restricted because of the scarcity of resources, or when those wishing to make use of the services in question must be subjected to discrimination in some way. (E.g. the allocation of flats, holidays, etc.)

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Perhaps, on the basis of what has been said above the statement may be ventured that the *attainment of the objectives of living level policies connected with social development as a whole and serving the latter and in harmony with the results of economic development, and worked out in a consistent system, can be successfully achieved only over some longer period of time.* By avoiding the unfavourable effects on economic and social development, the established situation can generally not be changed in a short time. This makes it imperative to weigh up carefully the tasks before us in the field of living level policies since from time to time decisions are passed on global or smaller scale on many problems of the living level and, independently of our decisions, also social and economic development involve certain changes. Efforts should be made to make these decisions and changes serve the objectives of long-term development, to fit them organically to each other, to do away with the contradictions emerging in the course of development, and to promote general social and economic progress.

It also follows that the *negative effects of some inadequate or insufficiently founded decision can be eliminated only within a longer period.* These measures will leave their impact on the country's economic and social life for quite a time. (A "good" example are the measures affecting population policies in the early fifties, the consequences of which will affect the pattern of the population through more than one generation.) This responsibility should be kept in view whenever social or economic measures affecting the level of living or directly interfering with it are under consideration.

Acceleration of economic growth

The social and economic leadership of the country is well aware of these responsibilities. As a consequence, we are now far from the practice of the 'fifties. In recent years, efforts at working out a complex and consistent system of raising the living level have been intensified. To illustrate these endeavours, let us mention only two facts. It is now ten years that the Central Committee of the Hungarian Socialist Workers' Party analysed the situation of the working class and reached essential political, social and economic conclusions. Four years ago the Economic Committee attached to the CC discussed several general problems of living level policy on the basis of a document worked out by a panel under István *Friss*. Many lessons derived from this document and the debate on it are reflected also in the statements of the 9th Party Congress. As a result of all these activities some of the systematizing principles of living-level policies have been formulated and greater attention is now being paid to disclosing the interrelations and mutual effects of the factors which determine the level of living.

The systematizing principles established and accepted are increasingly enforced in the economic practice of recent years. An important accepted principle of living-level policies — laid down also in the Congress resolutions — is that the living level of no major group or social stratum can be allowed to stagnate or decrease in the course of development. When taking central measures — e.g. in the case of price changes — care was taken that the situation of even the group affected most disadvantageously should not deteriorate against the existing level, that is, its living level should not decrease and the effects should work out favourably for the rest of society. *The foreseeable effects on the economic and social processes of the measures taken and the reaction they may provoke are increasingly taken into account.* Accordingly, we cannot rest satisfied with following up the general, average changes, since the motives and the effects are often determined not by the trend or the averages or the average level but by the underlying differences and distribution. It is a frequent experience that the development of the political atmosphere is quite opposed to what could be explained on the basis of average development. Some phenomena of the public opinion can be understood only when considering the distribution of incomes, the differences between the incomes of various strata. In fact, the assessment of contradictory measures — some of which tend to raise and some to reduce the living level — may be different even if these measures balanced each other in the final analysis in respect of major strata or even raise their level of living. We are inclined to view measures which raise the level of living as the abolishing of old "injustices", and those lowering the living level as the birth of new "injustices". Several effects of the measures introduced in 1968 will provide a good example.

In that year real income and real wages increased considerably at a rate surpassing that of the previous years, and yet, dissatisfaction was frequently voiced.

These problems already lead up to the idea that in economic policy the so-called subjective factors must earnestly be taken into account. Without that, the measures influencing the living level will not attain the desired results. This should not be taken as meaning that otherwise the inputs destined to raise the level of living would bear no fruit or would be superfluous; but they would not satisfactorily serve our purposes. The point is that it is an important requirement of living level policies that the increase should be tangible. Below a certain rate of growth the population will not perceive even the actual rise in living level and the subjective feeling will, therefore, be one of stagnation or even decline. It will be instructive to quote here the results of a survey carried out by the Central Statistical Office in 1965. The families which are keeping records for the purpose of family budget statistics were asked to contrast their living level in 1964 with that in the preceding year and with the situation five years earlier. They had to tell whether a smaller or greater improvement or deterioration took place between these dates, or whether their level of living remained unchanged, that is, stagnated. On the basis of the family budget statistics also the data actually characterizing the development of living conditions in the same families were available. The detailed results of this survey have been published elsewhere and should not be dealt with here.* But the following findings are instructive. In the worker and employee families which stated that their income had not changed from the previous year, there was an actual rise of 2 to 3 per cent. The data of this survey have proved that in these families an annual 2—3 per cent rise in income was below the threshold of perception. For five years, this threshold was a rise in income between 9 to 11 per cent. Stagnation in some year or a smaller increase in five years was unequivocally judged as deterioration and in a considerable part of the cases as a substantial one. One per cent increase in the income or consumption of the population comes to about 1500 million Forints. And when it is thought over how rarely is it possible to take central measures directly affecting the level of living to this extent, we will be able to judge the importance of taking such subjective factors into consideration when shaping economic policy.

The systematizing principle of our living-level policies according to which there must not be any major social group or stratum with a stagnating or declining level of living over some longer period, and the requirement that the rise in living level — considering also the dispersion of incomes — should, at least theoretically,

* Cf. L. Lengyel: Living Standard: Facts and Opinions. Acta Oeconomica. Vol. I. No. 3—4. pp. 327—343 (Ed. note).

determine the lower limit of raising the living level. In the final analysis all these will rest on the rate of economic growth and on the internal proportions of the allocation of national income.

When working out the objectives of living-level policies, requirements can and should be formulated also regarding the desirable extent of economic growth. Our ideas about living level policies and the most important internal relations outlined above, make an accelerated rate of economic growth and improved economic efficiency imperative. *The social and economic conditions are given today to a much greater extent than ever before.*

О ПОЛИТИКЕ В ОБЛАСТИ НАРОДНОГО БЛАГОСОСТОЯНИЯ

И. ХУСАР

Венгерское народное хозяйство со времени освобождения страны, в период и в результате социалистического строительства достигло чрезвычайно больших успехов в улучшении жизненных условий населения. Однако, несмотря на несомненные результаты, ход развития не был гладким. Средние темпы роста национального дохода были относительно невысокими, и хотя они существенно превышали темпы роста довоенного периода, все же были ниже темпов, достигнутых большинством социалистических и даже некоторых капиталистических стран. Рост потребления отставал от роста национального дохода, т. е. росла доля накопления. Вместо повышения эффективности капиталовложений темпы экономического роста поддерживались увеличением объема и доли капитальных вложений. Однако увеличение доли накопления не ускорило экономического развития и — вместе с тем — роста жизненного уровня. Одним из самых больших достижений экономической политики, проводимой после 1958 года, является то, что несмотря на колебания в темпе хозяйственного роста — причем амплитуда этих колебаний была значительно меньшей прежней — в основном удалось обеспечить равномерный рост потребления.

Тщательный анализ опыта прошедших лет позволяет сделать несколько важных выводов. Жизненный уровень не может надолго отрываться от роста национального дохода. Экономическое развитие отнюдь не обладает такой закономерностью, что накопление всегда должно обгонять рост потребления. Повышение доли накопления за некоторые оптимальные границы ведет к падению эффективности и не служит, таким образом, делу экономического роста и повышения жизненного уровня.

В области потребления, народного благосостояния руководители экономикой обладают весьма ограниченной свободой в случае сбалансированного общественно-экономического развития. Торможение роста или прямое сокращение любого из главных элементов народного благосостояния в результате принятия определенных центральных решений служит всегда источником обострения общественно-экономических противоречий, политических затруднений. Поэтому следует по-разному подходить к оценке колебаний в росте накопления и в росте потребления. Центральное руководство экономикой должно стремиться к тому, чтобы — обладая надлежащими резервами и другими методами — оно могло предотвратить нежелательные последствия действия факторов, случайных с точки зрения планомерности.

Использование фонда потребления национального дохода в основном определяется политикой доходов, связанной с общественным разделением труда. В Венгрии после освобождения страны постепенно уменьшался удельный вес доходов по труду и рос удельный вес доходов, получаемых из фондов общественного потребления. Само по себе это не противоречит принципу распределения по труду, не нарушает принципа материального стимулирования. Однако уравнительный процесс в Венгрии — цель которого было смягчение излишней дифференциации заработков, сложившейся еще до освобождения страны, — видимо, вышел за рамки, объективно необходимые с точки зрения требований общественно-экономического развития, и необоснованно уменьшил различия в оплате работников, выполняющих высококвалифицированный, сложный труд, и работников, выполняющих работу, требующую относительно небольшой подготовки. В сущ-

ности именно этот процесс влиял неблагоприятно на материальное стимулирование. Стимулирующее влияние дифференциации заработков в зависимости от общественной полезности труда может проявляться с должной эффективностью лишь в случае ослабления определяющей роли демографических факторов.

В Венгрии в прошедшем десятилетии все более стремились к комплексному и последовательному подходу при разработке политики в области народного благосостояния. Один из основополагающих принципов этой политики состоит в том, что не должно быть ни одной более или менее значительной общественной группы или прослойки, жизненный уровень которой не растет или даже ухудшается. Наряду с этим требование ощутимости роста жизненного уровня определяет — по крайней мере, теоретически — нижнюю границу роста жизненного уровня. Все это тесно связано с темпами экономического роста, с внутренними пропорциями распределения национального дохода. Настоятельным требованием поэтому является ускорение темпов экономического роста, повышение экономической эффективности.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 51—67 (1969)

R. Hoch

EFFECT OF CHANGES IN THE CONSUMPTION PATTERN ON THE GROWTH RATE OF TOTAL CONSUMPTION*

The present article is dealing with the problem of accelerating the growth rate of consumption by changing the pattern of consumption. The branches releasing consumer goods differ from each other in respect of returns to scale of the resources engaged and the changes in the returns relations. The branches can be ranked according to these differences. Preference of branches at the head of the list ranked by returns and dispreference of the less advantageous ones by measures of economic policy will result in a relatively greater combined volume of returns. The study outlines the problems connected with the interpretation of the principle of returns to scale as well as the factors limiting its realization. Finally, the principle is examined from the point of view of price theory.

It is a fundamental problem of long-term consumption planning — and of economy-wide planning in general — how to reach a maximum continuous growth rate of consumption or, rather, how can the growth of total consumption be accelerated. The relating considerations and the decisions based on them have several important effects on other aspects of the long-term plan. They will be determinant for the policy of consumer goods supply — which includes also investment, manpower and foreign trade policy — and for the direction and means of influencing consumers' demand, with price policy among the latter.

The growth rate of consumption is determined by several factors. From these the following are particularly important:

1. The volume of *accumulation* and its ratio to consumption.

2. Within accumulation, the volume and share of the part *serving directly* the increase in consumption (such as e.g. residential construction, the development of passenger transport, etc.)

3. *The efficiency of the resources* (their returns to scale) which are engaged in the output of consumer goods, and the efficiency and returns to scale of the *additional* resources serving this purpose.

The efficiency of these resources is itself a function of several factors. From among these, the article intends to deal with a single one only, namely with *the effect of the pattern of consumption* or, more closely, the effect of the *changes* in this pattern on the efficiency of resources.**

* This paper is based on the lecture of the author held at the Conference of International Economic Association, Venice 2—10, July, 1968.

** The drawing up of the long-term plan covering 1970—1985 is now in process in Hungary. The drafting of the plan is preceded by preliminary work in several commit-

1. The returns to scale* of the supply resources

Let us denote the resources engaged in the production of consumer goods, comprising both the capital engaged and the labour employed K_c;** the volume of the consumer goods released with the aid of these resources C; the additional resources (comprising both additional capital and additional labour) ΔK_c; and the additional volume of consumer goods due to these additional resources ΔC. Thus the average return of the resources engaged will be

$$C : K_c$$

and the returns of the additional resources:

$$\Delta C : \Delta K_c.$$

The ratio $C : K_c$ will depend to a high degree on the division of consumption between branches differing in their individual return ratios. The efficiency of some resource of a given size K_c will improve*** as the patterns of supply and demand shift in favour of products originating in branches more favourable from the point of view of returns at the expense of those which are less advantageous in this respect.****

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tees. One of these is the committee for mathematical models, engaged among others also in the construction of consumption models. Another committee is dealing with the level of living. The proper subject of the work of both committees is the pattern of consumption. Factors of efficiency such as the optimum volume of accumulation, the coefficient of technological development, etc., are considered as inputs to be supplied by other models and other committees.

* Return to scale is defined here and elsewhere in this study as a physical term generally measured by unchanged prices.

** The difficulties to be met in measuring and expressing the volume of the individual resources and, particularly, their combined volume, are well known. A further important problem must be separately mentioned. In order to judge efficiency it is not sufficient to analyse the relation between capital and labour on the one hand, and consumption and national income (or GNP) on the other. As a rough approximation, it may be assumed that the consumption of raw materials, etc., is proportionate with the growth of production. In reality, however, in view of their substantial share, a more efficient utilization of raw materials, etc. may increase the efficiency of the resources engaged *ceteris paribus* to a greater extent than an improvement e.g. in the coefficients of capital/national income or capital/GNP.

*** In the following it will be assumed that in case the efficiency of resources K_c engaged in the production of consumer goods improves, the full additional returns will be used to increase consumption and no part of them will serve the additional output of non-consumption goods. Of course, the possibility of a division of additional returns between consumer goods and investment goods in case the efficiency of K_c improves exists both theoretically and practically.

**** To avoid any possible misunderstanding it should be pointed out that the concepts outlined below are not yet generally accepted in consumption planning in Hungary. The computations based on these concepts are still in an initial stage. Only at a later stage of the work will it be possible to attempt the solution of the statistical and computational difficulties involved.

The output volume C_i of a given commodity X_i is a function of the volume of input K_i. The average return of volume is $f(K_i) : K_i$. The additional returns may be determined in the same manner as: $\Delta C_i : \Delta K_i$.

The returns — both the average and the additional — vary by industries. The growth rate of consumption will quicken if the pattern of consumption shifts in favour of industries more advantageous from the point of view of this return in volume terms, at the expense of those in a less favourable situation from that point of view. This already sets one of the fundamental tasks for planning. The *industries releasing consumer goods or, rather, their products must be ranked from the point of view of increasing returns to scale in the above sense and a suitable strategy must be elaborated to give preference to the development of the more advantageously placed industries as against those less so.* The return relations change from time to time and so does the relative position of industries; those showing earlier favourable returns may deteriorate and new branches with favourable returns emerge while — owing to technological development — industries in an unfavourable position may obtain a better ranking. Therefore, the list drawn up according to returns should be revised from time to time and a new ranking made conforming to the new relations.

From the point of view of ranking by returns the substitutable commodities must be distinguished from the independent groups of commodities. (As will be seen later, the latter include also the substitutes which cannot be compared with each other in physical terms.)

1.1 Ranking of substitutes which can be expressed by a common physical unit of measurement

The returns to scale of substitutes which can be expressed in a common physical unit of measurement are directly comparable. E.g. the output volumes and the utilization of various fuels — firewood, coal, oil, gas, electric energy, etc. — can all be expressed in a uniform coal equivalent. Similarly, relying on certain technical parameters, natural and artificial fibres can be expressed in a common unit. On this basis the returns to scale of the releasing industries are commensurable.*

Let us assume that a given demand can be satisfied alternatively by commodities X, Y and Z and that their volumes can be expressed by a common unit of measurement. Their returns to scale can, accordingly, be directly confronted.

$$\frac{C_x}{K_x} : \frac{C_y}{K_y} : \frac{C_z}{K_z}.$$

* In practice, it is frequently difficult to express the substitutes by a common unit of measurement. E.g. the above sources of energy are not only fuels. Coal and oil, etc. are also materials for the chemical industry and, therefore, their return relations have to be examined also with a view to this aspect.

Ranking must be established on the basis of this comparison and the substitute with highest return should be preferred while that with the lowest dispreferred. The list of preferences by returns to scale will not be affected by a reduction in the returns of the substitute with the highest returns or an increase in the returns of some lower ranked commodity, at least until the average return conditions themselves do not change. Let us assume that the average return of commodity X is higher than that of commodity Y

$$\frac{f(K_x)}{K_x} > \frac{f(K_y)}{K_y}$$

but the returns to scale of commodity X are diminishing while those of commodity Y are growing:

$$\frac{\Delta C_x}{\Delta K_x} < \frac{f(K_x)}{K_n} : \frac{\Delta C_y}{\Delta K_y} > \frac{f(K_y)}{K_y}$$

According to these conditions an increase in the share of commodity X will improve the combined returns at the expense of commodity Y and enable an acceleration of the growth rate of consumption. True, owing to changing returns relations, the shift in proportions improves their combined returns to a decreasing extent. If, however, the change in returns advances as indicated above, it will reach a point where the average returns will become equal and beyond that point the returns relations will change in sense, with preference of commodity Y and dispreference of commodity X acting now towards increasing the growth rate of consumption. Such changes in returns relations have to be reckoned with in long-term plans.

1.2 Ranking of commodities which cannot be expressed by a common unit of measurement

In the final analysis, total consumption is composed of independent groups of commodities which cannot be expressed by a common unit of measurement. In a long-term plan, decision must be taken precisely on how to develop the industries which release these independent groups of commodities, how to allocate and reallocate to them the productive resources.* The volumes of bread, meat, shoes, cars, or homes cannot be expressed by a common unit of measurement. Not even the substitutes can always be expres-

* Under the new economic system introduced in Hungary on January 1, 1968, economy-wide planning concentrates on regulating and influencing the major proportions of the economy and generally interferes but to a small extent with the output range of the individual industries and even less with that of the enterprises.

sed in a common unit since their qualitative features may differ so much that to select one of the parameters and use it as a common unit of measurement would lead to distorted results.

The returns to scale of the various industries are different from each other. But since the volumes of the commodities and groups of commodities in question cannot be expressed by a common unit of measurement, the average returns to scale are not commensurable either. The basis of ranking may *be the relative changes in the returns to scale.*

The output of some commodity X_i is a function of the resources used $C_i = f(K_i)$. The average and the additional returns may be established. The ratio of the two shows the relative change in the returns to scale:

$$V_i = \frac{\Delta C_i}{\Delta K_i} : \frac{f(K_i)}{K_i}$$

If $V_i > 1$, we may speak of increasing returns to scale, if $V_i = 1$, there are constant returns, and if $V_i < 1$, we have diminishing returns. The coefficient V_i expressing the relative change in returns is a figure without dimensions and suited for ranking the industries with commodities which cannot be expressed by a common unit of measurement from the point of view of return relations.

If we have commodities $X_1, X_2, \ldots, X_n$, each of which corresponds to a given industry, these industries may be ranked to the relations $V_1 > V_2 > \ldots > V_n$, in a way that at the head of the list we place the industry with the most rapidly increasing returns, — with the highest V_i — followed by those with less rapidly increasing returns. In the middle of the list we would find the industries with constant returns and at the end of the list those with diminishing returns, and the list would close with the industries with the most rapidly diminishing returns to scale.

At the head of the list we would usually find the young industries whose markets could be still considerably widened and whose technological development is also rapid. In Hungary, to this category belong e.g. the production of household machinery and TV sets, etc. At the end of the list there usually stand the extracting industries. Among those releasing consumer goods, in our country it is coal mining which ranks last.

It should be emphasized also in connection with the independent groups of commodities (and the substitutes which do not lend themselves to comparison in physical units of measurement) that the V_i relations, the ranking by returns, may change over time. New, young branches appear and take the head of the list while earlier young industries mature, their markets become saturated and the return indicator deteriorates. On the other hand, in the wake of technological development V_i may increase in industries where it has been low before.

Long-term planning will, as a principle, have to take into consideration the changes in V_i relations. Since, owing to the above causes, not all of the changes are foreseeable, the list of return ranking should be revised from time to time.

2. Interpretation of ranking by returns

Returns to scale and their relationships must not be examined in isolation; the interrelations of industries should also be kept in view. In this connection the following should be remembered.

2.1. Returns to scale must not be examined merely in the final phase of releasing the consumer good as an end product. Also the *returns in the phases preceding the release of the end product must be considered.* It may happen that considering only the end product, commodity X appears more favourable than commodity Y as regards returns. But if also the returns relations of the industries providing the machinery, raw materials, etc. for commodities X and Y are taken into account, it may turn out that the ranking will be reversed and, in our example, commodity Y may prove to be more advantageous than commodity X. Let us take, e.g. the washing machines and detergents which may substitute each other within certain limits. (They are also complementary, but that can now be disregarded.) The returns position of the detergents may be more favourable than that of the washing machines. But it should also be considered that in order to increase output of the detergents the chemical industry must be developed while the increased production of washing machines requires the expansion of the engineering industry. If the V_i coefficients of the chemical industry and of engineering are also taken into account, it may turn out that development of washing machines production precedes in ranking that of detergents. (N.B. If the return relations are examined in a complex manner, even in case of substitutes commensurable in physical units, only the relative changes in returns (V_i) can be compared.)

The combined return relations of the connected industries may be approached with the aid of various methods. The most suited one is the application of the input-output table.*

2.2. The development of the production of capital goods — and even of war material — results in many cases in an output of consumer goods. The return relations of these consumer goods cannot be evaluated in isolation; in fact, they cannot be judged at all from the aspect of the output of consumer goods.

* If changes in return relations are caused by technological changes affecting the output of the *end product*, or by the differing rates of growth in the various production branches, these changes will generally not affect the marginal efficiency of investment. However, if return relations change in the preceding vertical stages, this usually influences the marginal efficiency of investment and thus also its optimum size.

2.3. An important part of a complex investigation of return relations is to analyse *complementary relationships*. Increase in the consumption of some commodity usually involves growth of demand for its complementary products. A correct ranking by returns will be reached only if the returns of some commodity are analysed in a synoptical manner, together with its complementary products. E.g. the return relations of consumers' durables released by the engineering industry may seem advantageous. But, together with an increase in their consumption, demand for repair services will grow. In the service industry, however, we find generally constant, or even diminishing returns. (Diminishing, if among costs we account for rising wages and a globally invariable productivity.) Thus, if consumers' durables and services are investigated together, the return relations will appear less favourable.

2.4. Nor can the role of *foreign trade* be disregarded, particularly not in the case of a country such as Hungary where correct ranking can be established only with due regard to the foreign-trade aspect. In a country with an open economy, the patterns of domestic production and utilization will considerably differ from each other. A considerable part of the means of production released will be exchanged in foreign trade for consumer goods, and conversely, a considerable part of consumer goods released will be used to buy means of production. It follows that the return relations of domestically consumed consumer goods are decisively determined by the terms of foreign trade.

In this connection the concept of returns to scale means the following. From commodity X_i a volume of C_i can be bought for the amount M expressed in terms of foreign exchange at world market price P_i.

$$C_i = f_i(M) = f(C_i \cdot P_i)$$

The relative change in the returns to scale:

$$V_i = \frac{\Delta C_i}{\Delta M} : \frac{C_i}{M}$$

The various imported consumer goods may be ranked on the basis of coefficient V_i from the point of view of returns, but also the returns of the imported and domestically produced consumer goods may be confronted.

On the basis of the indicator

$$\frac{f_i(M)}{M} = \frac{1}{P_i}$$

the return of the substitutes expressible in a common unit of measurement can be directly compared.

In this relation the returns are determined by the trend of world market prices. To be able to establish the ranking of returns, long-term planning needs also a forecast regarding world market price trends.

3. The constraints

The task is to establish a ranking of consumer goods according to the returns interpreted in a complex way that preference is given to the commodities at the head of the list as against those at the end. This task can, of course, be interpreted and realized only within the framework of certain constraints. There are several factors which put a limit on shifting the patterns of demand and supply according to the ranking by returns. Generally, the shorter the plan period, the stronger the limiting factors. Fifteen or twenty years are a long time but the pattern of consumption cannot be modified at will even in the course of such a long period.

The most important limiting factors are the following.

3.1. Elasticities of demand with respect to income and prices

In long-term planning, broader commodity groups will generally be ranked according to their returns. However, demand for these groups will tend to develop basically in accordance with the *income effect*, the Engel-curves. These relationships cannot be fundamentally changed. The demand for goods satisfying superior needs is elastic. Generally, it will not be possible to achieve that the demand for them should grow slower than total demand, not even in the case of goods occupying an unfavourable position in ranking by returns. Similarly, the demand for goods satisfying primary or even inferior needs is inelastic. Generally, it will not be possible to achieve that the demand for these goods should rise quicker than total demand, not even if they occupy a favourable position in ranking by returns. What can be realistically aimed at in these cases is to restrict the increase in the consumption of goods with an elastic demand but a low ranking by returns, e.g., by raising their price, and to promote the consumption of goods with a rigid demand but favourable ranking by returns, e.g. by reducing their price. On the basis of a change in the relative prices in the above sense, the demand for the former goods will rise slower and that for the latter ones quicker than in case of unchanged prices or prices moving in opposite directions. Thus, the pattern of demand will shift in conformity with the return requirements and the growth rate of total consumption will quicken.

But *price elasticity of demand* is in itself a limiting factor. The above objective is effectively served by changes in the price of goods with a relatively high elasticity of demand with respect to price. But no noticeable change can be achieved in the pattern of consumption by changing the prices of goods whose price elasticity is near to zero. And since in such cases the price changes affect demand but slightly, they rather regulate the level and pattern of incomes and are thus not effective from the point of view of improving the return relations.

3.2. State preferences

It is an important task of the state to give preference — even to the detriment of the requirement of an optimal growth rate — to the consumption of certain goods and as against that of others, to influence the patterns of both demand and supply accordingly, and to follow a price policy which serves this aim.

Preferences and dispreferences may be of the most varied types. They may keep in view the consumption of the total population and its influencing. To give a stereotype example: the state will prefer the consumption of health services, cultural goods, etc., while endeavouring to restrict that of alcohol and tobacco, etc. by means of high prices and taxation, etc. In other cases the state endeavours to favour by means of consumption and price policy some stratum of the population. A particularly important case in point is the preference given to families with children through the relatively low prices of children's food (mainly milk for babies) and clothing, and of various goods necessary for school-children. (The prices of these goods comprise a negative tax, a subsidy.)

This system of preferences may conflict with the ranking by returns and the consumption objectives that follow from the latter. To this extent the system of preferences puts a limitation on the allocation and re-allocation conforming to the ranking by returns and thus also on the growth rate of total consumption. Presumably, a higher growth rate could be achieved by using more of the resources for producing brandy and less for the development of health and educational services. But also the opposite statement is true: an allocation and re-allocation of productive resources according to the ranking by returns must put limitations on state consumption preferences. In other words, it should be taken into consideration what sacrifices it will be worth while to make in order to enforce these preferences under the given conditions, and what sacrifices will society be able to make at the given stage of development.

It should also be noted that the justification for state preferences and dispreferences also changes with time; their system should therefore be revised from time to time.

3.3. Income policy

It is an important principle of consumption planning that there must not be any major population group with stagnating or diminishing real income over a certain (e.g. five-year) period. The transformation of the pattern of consumption according to the return relations requires substantial changes in relative consumer prices. (This problem will be reverted to later on.) Prices of products turned out by industries with favourable returns must be reduced and conversely. A price policy serving the principle of returns will affect unfavourably the consumer groups in whose outlays the goods to be priced higher have a large share and those to be priced lower have a small share. Taking for given the changes in relative prices, the smaller the rise in the general level of real income, the greater the number of consumers who will find themselves in a less favourable position and the greater the extent of the unfavourable effect itself. And conversely: the quicker the general rise in real income, the less pronounced will the problem be. However, with the general rise in real income given, the number of consumers unfavourably affected and the extent of the negative effect itself will depend on the extent of the price changes.

In principle, it is, of course, possible that consumers affected unfavourably by price policy are compensated by other measures — at the expense of consumers favourably affected by this price policy. However, such compensation is hardly realizable in practice. The greater the changes in relative prices in comparison to the rise in the general level of real income, the less can the consumers finding themselves in an unfavourable position be compensated.

It follows that the principle according to which all major social groups must have a rising real income even over a medium-term period, together with the growth rate of the general level of real income, will put limitations on the possible changes in consumer prices and through that also on the transformation of the consumption pattern corresponding to the return relations.

3.4. The principle of the minimum price

Consumer prices must cover the costs, both the production and sales costs of the producing enterprises and those arising from the point of view of the central government. In addition, both the enterprise and the state budget must show some net income. These requirements set the lower natural limit to prices. Taken in this sense, the principle of the minimum price is also a bound on consumer price policy serving the development of branches favourable from the point of view of returns.

Should the prices of the range of products released by an enterprise not secure profits or not even cover costs, its operation will become impossible. From the point of view of central government control and consumer price policy the minimum price is not an absolute limit. As is known, government can render profitable the preferred commodity for the enterprise with the aid of subsidies or other financial support, covering the relative item in the budget from revenue contained in the prices of other products (or from other sources). (As a rule, even individual enterprises often cover the losses due to some product from the profits made on some other one.) It should, however, be noted that the subsidies serving the implementation of the principle of returns must be granted to the most rapidly developing branches. In this case, therefore, the volume and share of subsidies will grow in the budget.

It follows that, although the minimum price from the point of view of the central government is not an absolute limit to the price policy serving the principle of returns, it still requires individual weighting whether to grant subsidies to some branch at the head of the list ranked according to the volume of returns to scale. And should the authorities decide on granting the subsidy, it must be done with the assumption that the improving returns will after some time enable the withdrawal of the subsidy, which must, therefore, be in general temporary.

3.5. Limitations on the allocation and re-allocation of productive resources

The objective is to allocate and re-allocate resources to be used for the production of consumer goods in favour of the industries with favourable returns and at the expense of those with unfavourable ones. The difficulty is that the allocation of productive resources cannot be changed at will even over a period of fifteen or twenty years. The given natural resources and the distribution of the labour force by qualification put limits on the re-allocation. Nor can the productive capacities be deliberately shifted from the production of some commodity to that of another.

3.6. Foreign trade

Foreign trade may put limitations on the transformation of the pattern of supply conforming to return relations and that from two aspects:

a) As has been mentioned above, the return relations of the imports of consumer goods must be also taken into account when ranking the consumer goods, particularly in countries with an open economy. Of course, the pattern of foreign trade may change substantially over one or two decades but even that has its limits. These limits are especially strong in countries which transact a substantial part of their foreign trade within the framework of clearing agreements.

b) In many cases the returns to scale of some industry releasing consumer goods become favourable only when the volume of production is substantially raised. This is particularly true in countries with no sufficiently wide internal market; here, the intended increase in production will become possible only if a considerable part of output is sold in foreign markets.

4. Ranking by returns and the price policy of the state

There are several important means available to transform the patterns of demand for and supply of consumer goods, as e.g. investment policy, credit policy, foreign trade policy, etc. From among these — particularly from the demand aspect — the price policy of the state is of particular importance. Relation of the latter to the ranking by returns to scale may claim interest also from the theoretical point of view.

4.1. Changes in relative prices

Price policy may promote a quicker development of the industries more favourably placed from the point of view of returns by ensuring a relatively low price for their products in a way which still enables the productive and marketing (importing) enterprises to offer their supply at a profit. Conversely, the restriction of industries with products of low returns will be served by narrowing the market through high prices without offerring thereby high profits to the enterprises turning out the commodities in question.

On January 1st, 1968, a mixed price system was introduced in Hungary. This means that the prices of some categories of goods remain officially fixed or, at least, their maximum is prescribed, others are only partially regulated and, finally, part of the goods have free prices. In the field of consumer goods, the share of officially fixed prices is relatively high (commodities and services serving primary necessities and with an inelastic demand belong to this category) and the share of free prices is relative low. The situation is the opposite as regards producers' prices, i.e. those prevailing in the transactions between enterprises.

In the case of full-scope official price regulation the above outlined price policy may assert itself directly: by reducing the consumer prices of the products of the industries to be preferred and by raising those of industries to be dispreferred; or, by raising producers' prices — if they are also fixed — in case of preferences and by reducing them in case of dispreferences. If prices are only partially administered by the authorities or not at all, tax policies, and mainly turnover taxes are the means to achieve the purpose. By prescribing low rates for the products of industries with favourable returns, a relatively low consumer price may be ensured, with the producer price enabling at the

same time the realization of a high enterprise income. In exceptional cases even a negative turnover tax can be established, that is, by granting budgetary subsidies it can be assured that the producers' price should be higher than the consumer price.*

By fixing high rates of turnover tax for the industries with unfavourable or even diminishing returns it can be secured that the level of the more or less freely moving consumer prices should be raised while enterprise profitability remains at a relatively low level.**

In so far as the ranking of industries by returns is correct and price policy as well as the differentiation of turnover tax rates conforms to this ranking, the differences in the initial turnover tax rates may later be reduced. As a matter of fact, in the industries with favourable returns the cost level will decrease with increasing production and this will enable the abolition of such subsidies and protective turnover tax rates as may have existed. In industries with unfavourable returns, however, the cost level may rise and the justification of restrictive turnover tax rates will cease to exist.

In connection with what has been said above two interrelations should be pointed out. First, it does not follow that as a result of the development outlined above, the relative differences in consumer prices and producer prices will level out, and converge to a general level. Secondly, the established ranking by returns should be revised from time to time and a new price and turnover tax strategy conforming to the new ranking worked out. As pointed out before, the industries at the beginning of their development and promising increasing returns which have to be preferred today by means of price and turnover tax policies may become mature tomorrow and will have exhausted their reserves, becoming thus unfavourable from the point of view of returns, and should be subjected to dispreference as expressed in price and turnover tax policies and the industries yielding unfavourable returns today and dispreferred by price and turnover tax policies may — as an unforeseeable result of e.g. technological progress — advance to the head of the list, and price as well as turnover tax policies will have to promote their growth according to the new conditions.

* Though the conception here outlined has not been consistently applied in Hungarian price policies up to now, some examples for similar efforts may still be found. E.g. at the end of the forties and at the beginning of the fifties the large-scale clothing industry was developed. The prices of ready made clothes were mostly fixed in a way that the producers' prices were higher than the consumer retail prices. This enabled expansion of the market and of production (clothing has become also an important export item), while the profitability of productive enterprises was secure. With growing production a reduction of costs became possible and, parallel to that, producers' price fell below consumer prices and thus subsidies were abolished and substituted by turnover taxes.

** The objective in question can be achieved not only with the aid of turnover tax policies but also by granting tax reductions and subsidies to the enterprises of the preferred industries and by fixing higher taxes for the enterprises of the dispreferred ones. This solution is, however, less advantageous, among others because it does not differentiate among products actually or potentially turned out.

4.2. Static interpretation of the general equilibrium and the price policies serving the principle of returns

Differentiation according to ranking by returns is not yet a governing principle of present-day consumer price policies (although the necessity is increasingly realized). The efforts of consumer price policy are for the time being centered on the levelling out of turnover taxes, i.e. aimed at making all commodity prices — apart from a few exceptions — to comprise the same percentage of turnover tax [2]. These efforts are based on the assumption that in case of equalized turnover tax rates the consumer prices will (on the whole) be proportionate to costs.

Many arguments are advanced in favour of creating an input-proportionate consumer price system. The most general and best known argument is that in the case of an input-proportionate price system the highest satisfaction of needs can be achieved with a given amount of input [3]. According to a special interpretation of this theorem, the highest satisfaction of needs, the greatest welfare will be reached at the point where the surface of transformation (of the production possibility frontier) and the surface of *aggregate social indifferences* touch [4]. A condition of reaching this point is to establish a price system determined by the partial derivatives of these surfaces as measured at the point of touch.

A price policy conforming to the ranking by returns is or at least can be contrary to the concept of input-proportionate prices. More precisely: it may happen that the price of some product of an industry at the head of the returns list is low in comparison to costs, meaning that the price should be raised if the principle of input-proportionate prices were to be followed. The principle of returns calls, however, for a reduction of the consumer prices. In the same manner, it may happen that the price of some product of an industry at the low end of the list is high in comparison to costs and thus the price should be lowered according to the principle of input-proportionate prices. The principle of returns would require a raising of the consumer price. The case is, however, conceivable where the requirements of the two principles coincide: the prices of products of some industry with favourable returns may be high in comparison to costs while the prices of products in an industry with unfavourable returns may be comparatively low. But such agreement will be merely incidental. And what is the most essential: even in such cases the starting point for the requirements raised on price policy is entirely different. Further, as has been shown above, it may happen in case the return principle is enforced that cost proportions will approximate the proportions of the altered prices (but not those of the original prices !) but no rule can be established according to which the cost proportions would approximate the price proportions. In addition, the establishment of a new ranking by returns may necessitate new

price alterations. And it should again be stressed that even if cost proportions approximated the established price proportions, the approach to the problem is fundamentally different from that of the static theory of equilibrium. (According to the latter, price policy must aim at approximating cost proportions. With the principle of returns enforced, a congruence of price and cost proportions is at most a result of, but not a requirement to be raised on, price policy.)

The source of the difference in starting points may be found in the fact that long-term planning must be founded on a theory not of static but of dynamic equilibrium.

Firstly, the theory of static equilibrium is not suited to provide a basis for practical planning. To relate this to our problem: as based on a theory of static equilibrium, the concepts of optimal consumption and a conforming optimal system of consumer prices imply at least the following major assumptions:

— The transformation surface is concave as seen from the origo.

— Individuals have a consistent indifference map which is independent from the income and price situation. (The indifference surfaces are convex.)

— Individual systems of preferences can be socially aggregated, and also the socially aggregated indifference surfaces are convex. (Nor can they have any concave interval.)

These axioms are extremely strong ones but they cannot be verified in practice [5]. In long-term planning, however, not only their theoretical existence should be assumed but also their practical assessment is needed, and not only for the present situation but for 15—20 years ahead. It is, however, beyond hope to be able to draw up the long-term consumption plans on the basis of socially aggregated indifference surfaces.

Secondly — and this is the most essential requirement — the long-term plan should control the *growth* of the economy and within it that of consumption. Now, the theory of growth is a theory of dynamic equilibrium, that of the *changes* in the proportions of the economy [6]. The long-term plans should, accordingly, control first of all the changes in the major proportions of the economy. And thus the long-term consumption plan should cover the growth rate of consumption and the development of this rate with time, the changes in the ratio of consumption to investment, the changes in the relative proportions of market and extra-market consumption, the changes in the commodity and service pattern of consumption, etc., etc. *The long-term plan, including the consumption plan, should basically consist of a consistent system of differential functions. In this conception, the objective function is not maximization of the volume of consumption but maximization of the change in consumption, that is, of the rate of growth.* It is this aim that is served by the ranking by returns and the corresponding alterations of supply and demand. This is the starting

point of the concept of price policy outlined above, which is opposed to the input-proportionate price conception following from the static equilibrium theory even if the requirements following from the two kinds of concepts happen at times to coincide.

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ВЛИЯНИЕ СТРУКТУРНЫХ СДВИГОВ В ПОТРЕБЛЕНИИ НА ТЕМПЫ ЕГО РОСТА

Р. ХОХ

Исследование возможности повышения темпов роста потребления путем изменения структуры потребления в течение долгосрочного планового периода.

Отдача, измеряемая физическим объемом

Ресурсы K (включая и капитал и рабочую силу), вложенные в производство предметов потребления, позволяют выпустить в течение данного периода блага, физический объем которых C; дополнительные затраты ресурсов ΔK дают прирост выпуска ΔC. Средняя отдача ресурсов, измеряемая физическим объемом, выражается отношением $C : K$, а отдача добавочных ресурсов — отношением $\Delta C : \Delta K$. В обобщенном виде: выпуск потребительских благ функционально зависит от ресурсов $C = f(K)$, средством анализа этой функциональной зависимости служит коэффициент $\frac{\Delta C}{\Delta K} \cdot \frac{K}{C}$, измеряющий относительное изменение отдачи, измеряемой физическим объемом.

Динамика и возможности роста отдачи ресурсов зависят от многих факторов, в частности, от распределения и перераспределения ресурсов между отраслями.

Установление порядка отраслей в зависимости от отдачи

Производящие предметы потребления отрасли отличаются друг от друга с точки зрения условий отдачи.

Порядок отраслей, выпускающих субституты, измеряемые общей единицей измерения, можно установить в зависимости от величины отдачи. Порядок же отраслей, выпускающих *независимые* блага (и субституты, не измеримые общей единицей измерения) можно установить на основе *изменения* отдачи. Во главе списка будут стоять отрасли с наиболее быстро растущей отдачей, а в конце его — отрасли с убывающей отдачей.

Эффективность ресурсов, занятых в производстве предметов потребления, их отдача, *измеряемая* физическим объемом, растет и темпы роста совокупного потребления повышаются, если экономическая политика оказывает преимущественное внимание от-

раслям, стоящим впереди по порядку отдачи, и в соответствии с этим изменяется структура выпуска и потребления.

Условия отдачи нельзя рассматривать изолированно и считать неизменными. При установлении порядка отраслей с точки зрения отдачи следует учитывать следующее:

— условия отдачи на предшествующих стадиях производства данного продукта;
— условия отдачи в производстве комплементарных благ;
— пропорции обмена во внешней торговле;
— изменение условий отдачи со временем.

Главные ограничительные факторы при осуществлении принципа отдачи

1) Требование рыночного равновесия; эластичность спроса по доходу и цене;
2) государственные предпочтения в потреблении;
3) политика доходов;
4) требование цены, минимально покрывающей издержки производства;
5) возможности распределения и перераспределения производственных ресурсов;
6) внешняя торговля.

Порядок по отдаче и государственная политика цен

Осуществлению принципа отдачи должна способствовать также и государственная политика цен и налогов. Продуктам отраслей с благоприятной отдачей следует давать предпочтение в виде относительно низких потребительских цен и достаточно высоких прибылей предприятий. А производство и потребление продуктов отраслей с неблагоприятной отдачей должно ограничиваться посредством высоких потребительских цен и изъятием у предприятий значительной части реализованного чистого дохода.

Такая политика цен в ряде случаев отклоняет пропорции потребительских цен от пропорций затрат. На основе различных теоретических выкладок многие делают вывод, что оптимум потребления обеспечивается структурой потребления, образующейся при потребительских ценах, пропорциональных затратам. Однако статически нельзя дать реальной, достоверной экономической интерпретации оптимума потребления. К чему можно и нужно стремиться в экономической политике и хозяйственном планировании — это оптимальные темпы роста потребления. Именно этому способствует последовательное изменение структуры потребления в соответствии с принципом отдачи и служащая этому политика цен. А предпосылкой последней отнюдь не является требование потребительских цен, пропорциональных затратам.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 69—87 (1969)

Ф. КОЗМА

ТЕХНИЧЕСКИЙ ПРОГРЕСС И СИСТЕМА ДОЛГОСРОЧНОГО КРЕДИТОВАНИЯ В СОЦИАЛИСТИЧЕСКОМ СОДРУЖЕСТВЕ

Европейские социалистические страны — на пороге широкого развертывания научно-технической революции. Характер международного инвестиционного «банка». Средства банка. Кредитная политика банка. Ожидаемое влияние банка.

1. Европейские социалистические страны — на пороге широкого развертывания научно-технической революции

Европейские социалистические страны в ходе прошедших лет в основном сформировали индустриальные структуры своих народных хозяйств, перегруппировали освободившуюся в сельском хозяйстве рабочую силу в другие отрасли народного хозяйства, создали систему производства средств производства. Всего этого им удалось достигнуть путем планомерного использования национального дохода, сильным увеличением фонда накопления народного хозяйства, интенсивной деятельностью в области капитальных вложений.

По расчетам Института экономики Венгерской Академии наук фонд накопления национального дохода в европейских социалистических странах составляет не менее 30%. В то же время во всех странах наблюдается значительный рост капиталоемкости производства. Эти два явления указывают на понижение эффективности накопления в народном хозяйстве. Экономическое развитие достигло такой стадии, когда способ развития, применяемый странами до сих пор, становится менее плодотворным. Механизация основных трудовых процессов по всей структуре закончена, или по крайней мере заканчивается, достигнуты успехи и в области механизации вспомогательных трудовых процессов.

Следующий значительный шаг — это создание грандиозных поточных линий, связанных между собой; автоматизация основных технологических процессов, массовое использование электронно-вычислительной техники в управлении производством, замена традиционных основных материалов синтетическими и т. д. Это сопровождается коренным изменением структуры производимых изделий, ростом технических требований, предъявляемых к выпускаемой продукции. Мировая экономическая литература единодушно называет этот процесс научно-технической революцией. Социалистические

страны Европы находятся на пороге этого этапа развития. Увеличение эффективности действия факторов производства этих стран в настоящее время зависит прежде всего от того, смогут ли они переступить этот порог.

Преодоление этого «порога» имеет многочисленные условия. Из них три — наиболее важные:

а) Максимальное и целесообразное использование, перегруппировка и концентрация внутренних резервов в интересах технической реконструкции. В первую очередь средства труда и прочие необходимые атрибуты современной технологии являются тем центром, вокруг которого может быть сгруппирована полная техническая реконструкция народного хозяйства. То есть ключевым пунктом реконструкции является машиностроение, химия и современная металлургия, а также их энергетическая база.

б) Использование возможностей, заложенных в международном социалистическом сотрудничестве. Модернизация производства, с одной стороны, делает необходимым налаживание производства новых изделий в больших масштабах. С другой стороны, соответствие издержек модернизации с материальными возможностями наций требует крупносерийного изготовления нового оборудования, поскольку таким путем довольно значительные издержки, связанные с научными изысканиями, планированием и подготовкой производства, раномерно распределяются между отдельными изделиями. Каждая из малых социалистических стран в отдельности не в состоянии удовлетворить все эти требования, попытка достигнуть этого в одиночку привела бы к распылению сил и в итоге к невозможности осуществления технической реконструкции. Разделение труда между большинством европейских социалистических стран и для Советского Союза означает значительную экономию средств, учитывая то обстоятельство, что экономический потенциал европейских социалистических стран, взятых вместе, составляет почти половину производственной мощности советской экономики.

в) Освоение техники, уже испытанной в развитых капиталистических странах. Техническая перестройка требует значительного времени и энергии даже и тогда, если мы оптимально концентрируем внутренние ресурсы стран на достижение этой цели и по возможности благоприятно координируем усилия отдельных стран. Именно поэтому, в интересах значительного ускорения процесса, имеется необходимость в изучении технических результатов, достигнутых развитыми капиталистическими странами, в импорте машин и оборудования, в приобретении лицензий и технологических решений, причем более систематически и в значительно больших масштабах. Естественно, это лишь тогда действительно ускорит усовершенствование производительных сил народного хозяйства, если сопровождается эффективным использованием внутренних резервов и совершается в рамках международного

социалистического сотрудничества. Иными словами, все три фактора тесно взаимосвязаны. Недооценка одного или другого может затормозить весь процесс.

Необходимо учитывать тот факт, что страны должны осуществлять техническую реконструкцию таким образом, чтобы она по возможности в наименьшей степени нарушала сложившийся процесс воспроизводства народного хозяйства, в тесной взаимосвязи с ежедневным процессом воспроизводства. Итак, реконструкция сопровождается дополнительными инвестиционными требованиями, удовлетворение которых, учитывая и так уже напряженные пропорции использования национального дохода, задача не легкая. Необходимо учитывать также и то, что при массовом импорте техники потребность капитальных вложений в иностранной валюте растет быстрее, чем сам объем капитальных вложений. Получение необходимой валюты в свою очередь за счет роста текущего экспорта не всегда возможно, учитывая то, что возможности расширения производства товаров, которые могут экспортироваться в развитые капиталистические страны, — ограничены. Однако, машиностроение, из продукции которого каждая социалистическая страна уже имеет экспортируемые излишки, страдает проблемами реализации, именно из-за недостаточного технического уровня части его изделий.

Таким образом, с одной стороны, имеет место рост потребности в капитальных вложениях, рост их валютных потребностей, с другой стороны, имеют место напряженные балансы народного хозяйства и особенно платежные балансы.

Это положение может нанести европейским социалистическим странам значительный ущерб, а также потерю времени в экономическом соревновании двух мировых систем.

Только международными усилиями социалистических стран можно предотвратить этот ущерб. Имеется необходимость, с одной стороны, в международной координации направления реконструкции производства средств производства, а также в создании целесообразных механизмов в международном сотрудничестве с тем, чтобы рационально использовать имеющиеся материальные резервы и внутри этого источники конвертабельной валюты.

Для решения этой задачи наиболее приемлемым является создание международной системы долгосрочного кредитования социалистических стран. Одной из ее важнейших задач было бы сосредоточение в своих руках значительной части долгосрочного кредита, предложенного развитыми капиталистическими странами, в целях наиболее эффективного использования возможности импорта современного производственного оборудования из этих стран.

Наши страны во многих случаях вынуждены импортировать из раз-

витых капиталистических стран не самую современную технологию, или отсталое оборудование, поскольку они должны распределять свои валютные средства между многочисленными импортными объектами, иногда параллельно приобретаемыми из западных стран. Таким образом они вынуждены уменьшать требования по качеству к западным поставщикам. Часто бывает и то, что наши страны импортируют из капиталистических стран такое оборудование, технические параметры которого не лучше, а иногда и хуже оборудования, которое может быть предоставлено социалистическими странами. Бывает и наоборот, социалистические страны, при отсутствии достаточного количества валюты, вынуждены использовать оборудование недостаточного технического уровня даже и в таких ключевых пунктах народного хозяйства, где коренная модернизация производства была бы жизненно важным вопросом (прежде всего в случае создания новых крупных мощностей, оказывающих влияние на технический прогресс ряда других отраслей народного хозяйства данной страны, а также и других стран социалистического сообщества). Эти трудности возникают особенно резко именно тогда, когда речь идет о создании объектов, требующих международного кооперирования и специализации, связанных с огромными капитальными вложениями.

Но это лишь несколько примеров: можно было бы продолжать перечисление случаев, свидетельствующих о том, насколько вредно для социалистических стран и для всего содружества отсутствие долгосрочной международной кредитной системы, направленной на более рациональное использование инвестиционных кредитных ресурсов, предлагаемых фирмами или государствами третьих стран в свободно конвертируемых валютах.

То что мы предлагаем создать, это — кредитная *система* такого характера. Она может создаваться в самых различных организационных формах, соответствующих конкретному положению. Для таких целей можно создать самостоятельный международный инвестиционный банк или фонд, имеющий свой уставный капитал большей частью в свободно конвертируемых валютах, но можно расширить сферу деятельности уже существующего Международного банка экономического сотрудничества. Мы не хотим спорить о форме осуществления предлагаемой системы, чтобы не отвлечь внимание от необходимости создания *самой системы*. Ради упрощения изложения характера и способа функционирования системы все-таки мы говорим об инвестиционном банке, поскольку в этой форме можно показать в самом чистом виде механизм, о котором идет речь. Это, однако, нельзя расценивать ни как высказывание за абсолютное преимущество этой формы, ни как возражение против других возможных вариантов. Под выражением «банк» следует понимать саму определенную *функцию* международного финансового механизма, которая может воплощаться в самых различных целесообразных формах.

2. Характер международного инвестиционного «банка»

До настоящего времени лишь мировое капиталистическое хозяйство имеет опыт в связи с международными инвестиционными банками, собирающими освобождающиеся капиталы и размещающие их для целей зарубежных капитальных вложений. Это во многих отношениях делает невозможным учет этого опыта. Речь идет не только о том, что за большей частью банков стоят американские капиталисты с их стремлениями к господству, и само кредитное учреждение имеет такую структуру, при которой оно может функционировать в интересах этой цели. Это несомненно относится к Мировому Банку (Banque Internationale pour la Reconstruction et le Développement — B. I. R. D.) и к его филиалам, а также и к латиноамериканскому банку развития. Европейский Инвестиционный Банк, включающий в себя страны-участницы Общего рынка, не является простым придатком американского монополистического капитала (хотя его влияние трудно было бы отрицать). Его структура и функционирование отражает то, находящееся в переходном состоянии, компромиссное положение, которое имеет место между шестью странами Западной Европы. Для учреждений, действующих в социалистических странах, ставящих своей целью максимальное ускорение технической реконструкции, и это не может служить безоговорочным примером. Кроме этого они вынуждены направлять в добывающие отрасли относительно больше средств, имеющихся в их распоряжении, по сравнению с развитыми капиталистическими странами, поскольку последние преобретают значительную часть сырья из развивающихся стран, где имеются благоприятные условия добычи и весьма низкие издержки на зарплату.

Эти два фактора, вместе с низкой эффективностью капитальных вложений приводят к относительный нехватке капитала и тогда, когда имеет место рациональная организация народнохозяйственного процесса воспроизводства, т. е. имеющиеся средства оптимально распределяются, используются между отраслями. Таким образом, социалистические страны не имеют таких свободных капиталов, реализация которых составляла бы для них проблему. Следовательно, необходимо подумать, какой должна быть та сумма, которую целесообразно концентрировать из валового национального продукта участвующих стран, каким образом отдельные страны могут быть заинтересованы в участии в основном капитале Банка, а также в содействии предоставления кредитов.

Другое значительное отличие вытекает из различий потребностей финансирования. Социалистические страны в нынешних условиях их развития нуждаются в первую очередь не в международном финансировании инфраструктуры, а в ускоренной, продуманной в международном масштабе модернизации отраслей, находящихся на ключевых позициях с точки зрения технической реконструкции.

Следовательно, основной задачей является не освобождение народнохозяйственных отраслей от трудновозмещаемых капитальных вложений, а объединение усилий в интересах быстрого развития центров технической реконструкции. Это является довольно большим облегчением по сравнению с положением западных международных инвестиционных банков. С одной стороны, кредиты большей частью быстрее возмещаемые по сравнению с кредитами Мирового Банка, а также Европейского Инвестиционного Банка, предоставляемыми в целях создания инфраструктуры, энергетики, металлургических баз и т. д. С другой стороны, в случае целесообразного использования кредитных сумм, производственные мощности создаются в массовом масштабе именно в таких отраслях, которые и с технической точки зрения и с точки зрения способности к накоплению оказывают интенсивное влияние на дальнейшее развитие народного хозяйства. Таким образом, возмещение кредитов, размещенных Банком более обеспеченно, с другой стороны, имеющиеся в распоряжении суммы быстрее обращаемы. Это преимущество в значительной степени смягчает трудности (которые нельзя недооценивать), возникающие в связи с накоплением основного и кредитного капитала, необходимого для функционирования Банка.

И наконец, третье отличие, вытекающее из особенностей экономических отношений группы стран, создающих социалистический Банк: довольно значительная часть возникающих трудностей в кредите, по крайней мере до конца первого периода массовой реконструкции машиностроительной и химической промышленности, будет возникать не в валюте государств-членов Банка, а в валюте развитых капиталистических стран. Это ставит три проблемы: с одной стороны, какой должна быть доля взноса в основной капитал, представляемая Банку в конвертируемой валюте. С другой стороны, уже теперь видно, что одной из основных видов деятельности Банка является получение долгосрочных кредитов от развитых капиталистических стран. Наконец, какова будет роль основного капитала и кредита, размещенного в национальной валюте. Это последнее заслуживает особенного внимания, т. к. в случае непродуманной трактовки возникающих в связи с этим проблем ставит под угрозу способность Банка к функционированию.

За основным капиталом в валютах социалистических стран должен стоять объем таких товаров, которые в случае необходимости могут быть реализованы и на капиталистических рынках: значит, в первую очередь сырье, продовольствие и в меньшей степени изделия легкой промышленности. Без такого покрытия вышеупомянутые суммы не имеют практического смысла.

Учитывая тот факт, что Банк — не межгосударственный орган, а Банк в полном смысле слова, т. е. деловое учреждение, его статус целесообразно определить как статус международного предприятия. Европейский Инвестиционный Банк — это орган Европейского Экономического

Сообщества, его члены — все государства Общего Рынка. Членство в Общем Рынке автоматически сопровождается вступлением в банк. Для социалистических стран использование такой практики нецелесообразно. Предшествующее функционирование СЭВ-а доказало, что в результате довольно значительных различий в уровнях развития стран, их условий воспроизводства и возможностей роста более успешным является создание отдельных совместных организаций на основе добровольности. Поэтому ни в коем случае нецелесообразно участие в работе банка связывать с членством СЭВ-а. Организация, функционирование банка, его способность влиять на экономику должны наиболее соответствовать условиям развития его членов. Возможность вступления в банк, естественно, нужно обеспечить для любой страны. *В результате этого, членом Банка может быть любая страна, которая признает принципы деятельности Банка и выполняет свои обязательства перед Банком, независимо от того, является ли она членом СЭВ или нет.*

Тем не менее, целесообразно организовать тесное сотрудничество между Банком и СЭВ-ом. В этом отношении опыт международных инвестиционных банков, действующих в мировом капиталистическом хозяйстве, может быть некоторым полезным примером. Международные организации дают банкам рекомендации, в связи с принципиальными вопросами своей кредитной политики, в случае надобности, делают конкретные предложения по вопросам кредитов. Эти рекомендации, даже в случае ЕИБ, не являются обязательными для банка.

3. Средства банка

Инвестиционные банки располагают двумя главными источниками средств. С одной стороны — это их уставный капитал, который в значительной своей части служит не для действительного кредитования, а является гарантийным фондом, с другой стороны — это чистое количество взятых ими кредитов. Кроме этого кредитоваться могут и проценты, а также определенная часть доходов от комиссионных, операционных расчетов.[1]

Уставный капитал упоминаемых в данной работе международных инвестиционных банков сложился из взносов стран-участниц. Основой для определения доли каждой страны в уставном капитале служит несколько показателей, относящихся к размерам страны, уровню ее развития и активности на мировом рынке. Так, например, количество населения, национальный доход на душу населения, доля страны в мировом внешнеторговом обороте и т. д.

[1] Хотя их некоторая часть распределяется между акционерами как дивиденты, а другая часть покрывает расходы по содержанию банка.

Уставный капитал Мирового Банка составлял около $7\,^3/_4 \cdot 10^9$ долларов, этот капитал в 1958 году вырос до $21 \cdot 10^9$ долларов. Это, однако, несопоставимый для нас фонд, поскольку у него совсем иные функции, чем функции фонда социалистического банка. Гораздо показательнее сравнение с ЕИБ. Его исходный капитал составляет $1 \cdot 10^9$ долларов[2] — то есть — примерно 0,6% совокупного национального дохода стран-участниц. Из миллиарда долларов уставного капитала фактически внесенную сумму составляет только 250 миллионов долларов, то есть примерно 0,15 % совокупного национального дохода стран-участниц. Из этого количества снова только $^1/_4$ выплачивается в золоте или в долларах США, а $^3/_4$ — в валюте стран-участниц. Конечно, если речь идет о валютах полной конвертабельности, то характер выплачиваемых денежных единиц не имеет первостепенного значения, ведь французский франк или итальянская лира имеют такое же хождение на мировом рынке, как и доллары США. Если же возникают различия в покупательной способности, связанные с различиями в курсах цен, то банк стремится переложить их на кредитополучателей. Банк свободно располагает золотым или долларовым запасом, составляющим 6,25% уставного капитала, при использовании же 18,75% запаса национальной валюты он должен заручиться согласием страны.

Возникает вопрос:

а) Какая сумма уставного капитала необходима для того, чтобы можно было в необходимой мере осуществить финансирование, способствующее ускорению технической реконструкции, модернизации ключевых отраслей хозяйства социалистических стран?

б) Какие критерии должны служить основой для определения соответствующей доли отдельных стран в уставном капитале?

Что касается а): Точный ответ на этот вопрос можно дать только в том случае, если уже известны два основных фактора. С одной стороны, состав стран-участниц банка, с другой — масштабы их программ модернизации, а также их потребности в кредитах социалистических и капиталистических стран в связи с выполнением этой программы.

Поскольку речь идет в основном о финансировании капиталовложений в области химии и машиностроения, то программу (план капиталовложений и финансирования) достаточно составить для химии на 12—15 лет, а для машиностроения на 7—8 лет. Исходя из этого, можно примерно представить себе, какой величины заемный капитал и на какой срок нужен

[2] Правда, уставный капитал выражается не в долларах, а в «международных расчетных единицах», но стоимость одной единицы равнозначна золотому содержанию одного доллара, следовательно, она составляет примерно один так называемый «евродоллар».

банку. С каким уставным капиталом можно это осуществить? — на это дают ответ уже сложившиеся международные нормы. В случае ЕИБ для бесперебойной деятельности банка 40% оборотных кредитов замораживают в форме уставного капитала. Точнее, основной устав банка говорит о том, что общий объем кредитных операций не может превысить основной капитал более, чем в два с половиной раза.

Следовательно, зная в общих чертах основные направления инвестиций, их потребности в кредите, а также потребности в кредите в конвертируемой валюте, заранее определив в рамках этой потребности ту долю, которую по мнению стран целесообразно обеспечить через международный банк, а не непосредственным предоставлением кредита, можно в общих чертах расчитать потребность банка в основном капитале.

Но в этом вопросе трудно было бы применить какую-либо предварительную оценку. Уставный капитал ЕИБ составляет $1 \cdot 10^9$ долларов, то есть около 5 долларов на каждого жителя стран общего рынка или же 0,6% совокупного национального дохода стран-членов Общего Рынка. Если взять за основу эту удельную величину и предположить, что в работе банка будут участвовать все европейские страны-члены СЭВ, то тогда согласно норме в 5 долларов на душу населения нужен уставный капитал примерно в $1{,}6 \cdot 10^9$ долларов, а если исходить из 0,6% национального дохода — получится уставный капитал в $1{,}2 \cdot 10^9$ долларов. Пока нет никаких реальных основ для того, чтобы рассчитав на основе инвестиционных планов отдельных стран, согласно описанной выше логике, потребность банка в уставном капитале, ответить на вопрос, к какой, из приведенных выше сумм, она будет ближе. Во всяком случае искомую сумму может уменьшить тот фактор, что социалистический банк занимался бы финансированием не всей производственной сферы, а только ключевых пунктов технической реконструкции, что кредитование относилось бы главным образом к комплексу машин, а не к строительству и что фигурирующие в наших расчетах химическая и машиностроительная промышленность относятся к быстро окупающимся отраслям, особенно если сравнить их с инфраструктурой, с энергетикой, металлургией, то есть с теми отраслями, финансирование которых отвлекает большую часть капитала ЕИБ. В то же время целью деятельности банка является в значительной степени ускорение реконструкции. Для этого нужно проводить более интенсивную кредитную политику, чем ЕИБ (активностью которого не удовлетворены анализы, оценивающие работу банка). Из этого, однако, следует, что уставным капиталом должна служить максимальная сумма, которую можно отвлечь от народного хозяйства на эти цели.

б) Реальное решение возникает само по себе, если хорошо продумать основной принцип структуры банка. Выше я упоминал о том, что участие в работе банка нецелесообразно ставить в зависимость от каких-либо обязательств. То же самое относится и к участию в создании уставного капитала

банка. Каждая страна на основе тщательного анализа внутренних и внешних факторов своего развития может определить, какими шагами она способна идти по пути технической реконструкции, и в каком направлении ей целесообразнее всего идти. Она составляет план капиталовложений, а также определяет, в таких случаях целесообразнее взять заем у социалистических стран, в каких случаях у капиталистических и в каких случаях надежнее, выгоднее воспользоваться услугами международного банка.

При полном знании вышеуказанных факторов, каждая страна берет на себя обязательства на определенную сумму уставного капитала банка в той мере, в какой она желает пользоваться его услугами. Если в этом случае, допустим, одна страна решает участовать в уставном капитале банка такой суммой, которая составляет 70% всей котировки, ей обеспечено то, что 70% концентрированного банком *заемного* капитала она имеет право использовать на цели модернизации ключевых отраслей промышленности, то есть она не возмет на себя выполнение роли общего финансиста модернизации производства других стран, а примет участие в этом взаимовыгодном для всех участников виде сотрудничества в соответствии со своими потребностями.

Нереально иметь слишком большие надежды на то, что в ближайшем будущем страны-участницы могли бы отказаться в пользу банка от значительных сумм (прежде всего, в конвертабельных валютах), пока не созрели первые массовые результаты технической реконструкции. Вернее, модно представить, что такие суммы будут формироваться, но в большинстве случаев их материальное покрытие пока не будет соответствовать требованиям стран, использующих кредит.

Поэтому в первоначальной фазе его деятельности весьма важной задачей банка является сосредоточение предложений долгосрочного кредита от развитых капиталистических стран и обеспечение его рационального использования. Такое предложение кредита действительно существует. Развитые капиталистические страны заинтересованы в расширении рынков сбыта машин и оборудования в социалистических странах и эта заинтересованность в настоящее время является более сильной, чем когда-либо со времени существования двух мировых систем.[3] Расширение этих связей без увеличения кредитных поставок и без удлинения сроков погашения столкнется с серьезными трудностями, это уже ясно и компетентным специалистам развитых капиталистических стран, они считаются с этими факторами, как с условием расширения товарооборота. Но, с другой стороны, они опасаются того, что при двухстороннем кредитовании их заемный капитал станет оборачиваться слишком медленно и что конкуренция развитых капиталистических стран на кредитном рынке Восточной Европы поведет к значительному

[3] см. «Движущие силы экономических связей Восточной и Западной Европы» (Valóság 1967) 5, на венгерском языке).

удлинению срока погашения кредита. Именно поэтому и в Западной Европе нашло бы поддержку создание такой крупной и солидной финансовой системы социалистического сообщества, в рамках которой их сальдо были бы свободно трансферабельными между странами. Эти же сомнения вызывают, между прочим, стремление западноевропейских деловых кругов к координации финансовой политики западных стран в рамках организаций экономической интеграции.[4]

Стремление к координации кредитной политики капиталистических стран является невыгодным с точки зрения социалистических стран, поскольку оно может неблагоприятно повлиять на условия кредитов для социалистических стран не только с точки зрения процентной ставки и срока оплаты, но и может способствовать тому, что капиталистические страны смогут легче контролировать процесс кредитования и посредством этого смогут оказывать давление на темпы и направления технической реконструкции в социалистических странах.

Осознавая то, что тенденция «сближения» западноевропейских капиталистических хозяйств проявляется все более сильно, одновременно мы должны, с одной стороны, принимать во внимание политические стремления этих держав, с другой стороны — не забывать о том, что техническое развитие хозяйства социалистических стран и с чисто коммерческой точки зрения подвергнет опасности деловые интересы отдельных капиталистических кругов. Социалистическим странам, однако, целесообразно оказывать влияние на эту противоречивую тенденцию в таком направлении, чтобы отдельные капиталистические страны или фирмы имели свои выгоды в ходе сотрудничества с нашими странами именно путем максимального ускорения технической реконструкции наших хозяйств.

Выступление предлагаемого банка на международном рынке долгосрочных кредитов было бы способно направлять сотрудничество двух групп стран именно в этом направлении. С одной стороны, банк обеспечивал бы высокую степень гарантии возврата кредиторам их капитала, он обеспечивал бы максимальное использование кредитных рамок; в этом отношении его функционирование удовлетворило бы интересы капиталистических кредиторов (и банковый и промышленный капитал получил бы больше выгод, чем в случае двухстороннего кредитования).

С другой стороны, появление крупного международного инвестиционного банка на рынке изменило бы соотношение между спросом и предложением, которое по моему мнению, целесообразно и возможно было бы использовать, в первую очередь, в области удлинения срока оплаты. Наконец (но не в последнюю очередь), существование такого банка влияло бы на со-

[4] См. отчет Мориса Биэ на сессии комиссии французского парламента по экономическим и социальным вопросам, 29-го июня 1966 г.

отношения сил и в области закупок машин и оборудования, лицензий и т. п. социалистических стран, поскольку отдельные внешнеторговые или промышленные предприятия появились бы на рынке с наличными деньгами в руках и, таким образом, у них открылись бы большие возможности выбрать самые подходящие им технические параметры и цены.

Действие банка в области сосредоточения, по возможности, большего количества долгосрочных капиталистических кредитов не означает стремления к кредитной монополии. Все это не исключает и того, что отдельные страны-участницы могут принимать кредиты в конвертируемых валютах самостоятельно (т. е. без посредства банка, путем двухсторонних договоров с капиталистическими государствами или банками), если они считают этот способ более целесообразным. Вероятно, в первоначальном периоде своего функционирования банк будет выступать на капиталистическом рынке кредитов как конкурент отдельных стран. Но, после накопления достаточного запасного капитала, положение резко изменится. Банк будет действовать как конкурент для капиталистических банков в области предложения кредитов, но не будет конкурентом в области спроса на кредит. И в этой области можно считаться с определенным переходным периодом, трудности которого мы должны преодолеть для того, чтобы «это дерево принесло свои плоды».

4. Кредитная политика банка

В связи с вопросами, в интересах каких *целей*, каким *способом* и при каких условиях целесообразно банку размещать кредитные ресурсы, имеющиеся в его распоряжении, возникает ряд экономических, политических, а также и в узком смысле, финансово-технических вопросов. Здесь мы попытаемся разобраться лишь в некоторых важнейших проблемах, а именно:

— в проблемах *принципиальных основ кредитной политики* банка и в связях этой политики с общей экономической политикой стран-участниц,

— в рычагах, имеющихся в распоряжении банка для осуществления на практике целей своей кредитной политики, а именно в возможностях влияний на капитальные вложения в ключевых отраслях и повышения технико-экономического уровня производства в этих отраслях.

Первый круг проблем тесно связан с общими политическими и экономическими проблемами сотрудничества социалистических стран.

Поскольку банк был бы создан именно для ускорения технической реконструкции производства, целесообразно было бы ограничить его деятельность на финансировании тех отраслей, которые самым непосредственным образом влияют на технический прогресс на данном этапе развития. Предлагаемый банк — по крайней мере в начальном периоде его существования — не являлся бы всеобщим инвестиционным банком, который проверяет инвестиционные планы, связанные с заявками на кредит, только с

точки зрения обеспеченности возврата предоставленного кредита с процентами; а потребительская стоимость товаров, создаваемых с помощью кредита, его не интересует. Этот банк, по своей сути, был бы *целевым банком*, который сосредотачивал бы свои средства для достижения результатов по совместно принятым экономическим программам участвующих стран. Поэтому он не может распылять свои средства на финансирование таких объектов, создание которых не соответствует его целям.

Этот принцип ставит весьма сложные политические и экономико-политические вопросы. С одной из таких проблем столкнемся сразу же, если примем во внимание то, что банк по самому смыслу своего существования не является сверхнациональным плановым учреждением, а это значит, что решение в международных масштабах вопросов о предполагаемых ключевых отраслях и т. д. никогда не может быть в его компетенции. Банк не способен ни создать, ни направлять экономическую политику стран-участниц: он должен оказывать помощь странам в выполнении совместно созданной программы развития. Чтобы успешно ее реализовать, эта программа должна быть в достаточной мере *конкретной*, реализуемой в масштабах отраслей, суб-отраслей, изделий (в определенных случаях), но и одновременно в достаточной мере *общей*, чтобы не вмешаться во внутреннюю политику экономического развития отдельных стран.

Страны-участницы могут создать такие программы или путем двух- или многосторонней координации их экономической политики в рамках экономического сообщества социалистических стран. Все это опять подчеркивает необыкновенную важность уважения принципа добровольности участия в работе банка. Этот способ образования кредитной политики сам по себе предполагает то, что основное долгосрочное направление технической реконструкции может быть скоординировано в масштабах многих стран. Значит, если мы говорим о «кредитной политике» банка, то мы не имеем в виду никакую политику, независимую от экономической политики стран-участниц. Координирование концепций и планов развития стран-участниц является основой деятельности банка.

Второй круг проблем может возникнуть только тогда, когда первая проблема уже решена.

Сюда относятся все, связанные с кредитной политикой, методы *выбора* банком финансируемых объектов (какие объекты заслуживают финансирования, как стимулировать капитальные вложения в отдельные отрасли и как «отбить охоту» у желающих взять кредит для создания мощностей в нежелаемых в данной фазе реконструкции отраслях, какую инициативу «награждать», а какую «штрафовать», каким образом и в какой мере и т. д.).

Возмем важнейшие виды «селекции» банка. Суть этого вида селекции можно охарактеризовать следующим примером: банк может отказаться от финансирования одного капитального вложения, допустим, в области швей-

ной промышленности, если страны-участницы на первый план выдвинули, скажем, развитие приборостроения.

Другой вид селекции является *косвенным*. В этом случае банк не разбирает заявки с точки зрения потребительской стоимости создаваемого изделия (в смысле «ты получишь деньги, а ты не получишь»). Пока ресурсы не исчерпаны, банк принимает заявки и удовлетворяет их по очередности прибытия (конечно, только тогда, когда проекты капиталовложений дают солидные надежды в отношении возврата капитала и процента), но определяет *разные условия* финансирования, в соответствии с тем, что заявка на кредит совпадает ли, и в какой мере, с главным направлением кредитования банка в данном периоде. Любое учреждение (предприятие, страна) может использовать средства и услуги банка, но предпочитаемые отрасли при более благоприятных условиях. (Под понятием «условия» мы подразумеваем не только процентную ставку: срок оплаты, способ возврата тоже можно пересчитать на процент, поскольку речь идет о том, какая часть прибавочного продукта, произведенного с помощью кредита, отдается банку за использование чужих средств, и как это влияет на накопления использователя в различные периоды функционирования данной производственной мощности.)

По моему мнению, будет необходимо пользоваться и «неудобным» средством непосредственной селекции, прежде всего, в первоначальном периоде функционирования банка по двум следующим причинам:

Во-первых, количество средств, имеющихся в распоряжении банка, в первые годы будет еще ограничено. Банк в этот период собирает капиталы и размещает их; капиталовложения начинаются, но производства еще мало. Таким образом, объем погашения и процента является ничтожным по сравнению с объемом размещенного капитала. Еще не чувствуется и преимущество, проистекающее из того, что банк размещает кредиты с менее длительным сроком возврата, чем срок возврата кредитов, которые он сам принимает.

Во-вторых, использование средств непосредственной селекции вынуждается и еще одной общей экономико-политической причиной. Страны-участницы в своих хорошо обдуманных интересах стремятся строго концентрировать свои капиталовложения на определенные области народного хозяйства, которые они избрали как самые эффективные ключевые пункты для ускорения технической реконструкции. Какая отрасль и какая группа изделий служит таким ключевым пунктом — об этом каждая страна сама должна будет решить после подробного расчета своих возможностей, проконсультировавшись с другими странами. Но избранные отрасли целесообразно по возможности быстрее и эффективнее модернизировать, иначе не достигнем основную цель, а именно — массовое развертывание научно-технической революции и ускорение ее темпов. Распылять национальные и международные средства совершенно нецелесообразно.

Когда эти, выбранные в качестве очагов технической реконструкции, отрасли уже в массовом масштабе начнут выпускать современное оборудование, химикалии, приборы и т. д. для других отраслей, когда начнется в массовом масштабе обмен современных средств производства на социалистическом международном рынке и, наконец, когда экспорт этих изделий в капиталистические страны уже чувствительно облегчит нехватку запасов в конвертабельных валютах социалистических стран, приблизится время для расширения процесса модернизации на все большие и большие области. Строгое отраслевое ограничение следующей ступени модернизации в зависимости от этого процесса станет все менее и менее важным.

И банк может параллельно смягчать селекционную деятельность. Какими темпами распространяется в народных хозяйствах внедрение и использование современной техники, такими темпами превращается «целевой банк» в обыкновенный инвестиционный банк. Здесь опять возникает проблема трудностей первоначального периода; в этом случае, как причина использования системы административного выбора финансирования.

И механизм *косвенной* селекции требует по возможности подробного анализа. Здесь возникают следующие проблемы:

а) В каких пределах колеблется срок погашения и внутри этого — срок начала погашения?

б) В каких границах колеблется *процентная ставка*, в чем возможность и целесообразность применения процентного пени в использовании бонификационных средств?

в) Какие принципы целесообразно применять в отношении *выражения* погашения и процента *в валюте?*

г) Каким способом эти элементы механизма соединяются в едином комплексе механизма финансирования?

а) Что касается срока и момента начала погашения, целесообразно исходить из норм времени строительства и монтажа, а также из норм обратимости, принимая во внимание сложившийся международный опыт промышленно-развитых стран. Сроки обратимости надо устанавливать, разумеется, не из сроков физического износа, а из темпов технического устарения.

В этой области, по-моему, нецелесообразно уступать тем соображениям, что социалистические страны медленнее ведут строительство, чем развитые капиталистические страны, что моральный износ в социалистических странах происходит медленнее, чем в главных капиталистических странах. Ведь цель заключается именно в том, чтобы инвеститоры в большей степени были бы вынуждены к лучшей организации и более быстрому осуществлению строительства и при этом были бы заинтересованы в наилучших технологических результатах, далее в том, чтобы в относительно быстрые сроки старения максимально использовать основные фонды и своевременно готовиться к их модернизации. Относительно узкие сроки, а также относительно

напряженный период погашения вынуждают инвеститора идти именно в вышеуказанном направлении и в то же время ускоряют оборот банковских средств.

б) Отходя от принятой практики долгосрочного двухстороннего кредитования, введенного в социалистических странах, я считал бы более целесообразным, если бы кредит, предоставляемый банком, был бы относительно дорогим, то есть, годовая процентная ставка была бы не 2%, а подобно западно-европейским долгосрочным кредитам в пределах 5—7%. По приблизительной оценке в случае кредита на 10 лет это означало бы вычет 10—15% из „М", предположив, что в объекте на каждый доллар, идущий на потребление (зарплата + прочие расходы по зарплате + общественное потребление) приходилось бы не менее одного доллара „М". Далее предположив, что продукт на любом внешнем рынке может быть реализован на уровне цен мирового рынка.[5]

в) В качестве общего принципа надо установить, что погашение выплачивается в той валюте, в которой отпускается кредит.

Поскольку среди условий кредитования, поставленных перед банком, имеет место так называемая золотая оговорка, постольку надо обуславливать при возвращении кредита то, чтобы погашение совершалось в ревалоризированной стоимости, соответствующей сроку оплаты кредита.

г) Банку надо стремиться также к тому, чтобы источники капиталистического кредита пропорционально распределялись между различными странами, чтобы поддерживать конкуренцию на социалистическом рынке между предложениями кредита различного происхождения. Это кардинально важно как с политической, так и с коммерческой точки зрения.

Банк кроме этого распоряжается концентрируемыми им источниками, предоставляет кредиты в распоряжение стран-участниц. Можно выделить две основные формы кредитования:

С одной стороны, кредитная операция должна возникать и таким образом, чтобы какая-либо страна-участница, или несколько стран-участниц совместно, принимали бы решение в соответствии со своими планами развития о сооружении предприятия, входящего в профиль финансирования банка (или о модернизации имеющихся предприятий, об объединении, о кооперации и т. д.) и в целях частичного финансирования этого капиталовложения обращались бы к банку со своими *кредитными потребностями*. Инициатива в этом случае исходит от вкладчиков капитала. Банк, прежде чем принять решение о судьбе кредитной заявки, подробно изучает инвести-

[5] В настоящее время эти требования может быть покажутся чересчур строгими. Не следует, однако, забывать о том, что образование банка служило бы той цели, при которой производственный аппарат социалистических стран был бы способен удовлетворять хотя бы этим требованиям. Если своею деятельностью банк не способен будет содействовать созданию объектов на таком технико-производительном уровне, то цель его не будет достигнута.

ционную программу с технической, рыночной и финансовой точки зрения (с помощью экспертной комиссии или технического бюро).

С другой стороны, банк, на основе имеющейся у него информации может установить, и это очень важно, совместную заинтересованность стран в создании того или иного вида производства, являющегося ключевым с точки зрения технической реконструкции. В этом случае *банк сам* может *выступить инициатором* операций по финансированию, именно таким образом, что назначает конкурсные переговоры о строительстве определенного объекта.

В первую очередь необходимо принимать во внимание ожидаемый технический уровень проектируемого капитального объекта, сопоставляя его с техническим уровнем подобных производственных мощностей промышленно развитых стран. Я не случайно употребляю выражение «технический уровень» вместо более общего выражения «эффективность». Дело в том, что необходимо считаться с тем обстоятельством, что в первый период реконструкции отдельные вступающие в действие современные производственные мощности не повышают сразу народнохозяйственную эффективность на данный момент. Их влияние скажется лишь тогда, когда будет завершена модернизация связанных друг с другом вертикальных производств, таким образом уровень капиталовложений не всегда может быть оценен с помощью обычного определения эффективности.

5. Ожидаемое влияние банка

Каждая вновь создаваемая организация будет обречена на провал, если от нее ждут, чтобы она была *сама способна* решить то множество комплексных проблем, которые вызвали создание этой организации. Мне бы очень хотелось в этой статье заранее предупредить эти иллюзии. Хорошая репутация и полезная роль создаваемого банка в области дальнейшего построения социализма ни в коем случае не основывается на многообещающей пропаганде вокруг создания этого банка, а будет основываться на продуманной и последовательной решимости участвующих в нем стран, а также на квалифицированной работе банка. Именно поэтому сейчас на первых порах должно быть ясно, что банк *не является* чудодейственным средством, он не может решать такие проблемы, которые ему не по силам. Однако в рамках своей компетенции и в той области, в которой он может осуществить это своими средствами, банк способен работать очень продуктивно.

Ясно, что не банк будет тем совокупным механизмом, который решает многогранные сложные проблемы сотрудничества европейских социалистических стран. Раньше или позже надо затронуть ряд таких вопросов, которые, вообщем то следует решать во взаимозависимости с банком, но все же вне его, так, например, вопросы совместного финансирования добычи сырья,

вопросы цен, вопросы мультилатерализации внешнеторгового оборота между странами-членами СЭВ. Банк может быть важным звеном в совершенствовании сотрудничества между странами-членами СЭВ, может воздействовать, даже в серьезной мере воздействовать на другие звенья механизма. Он может индуцировать такие возможности решения проблем сотрудничества, которые могли бы проявиться без деятельности банка или только позднее и в другой форме.

В чем основная рациональность создаваемого банка? То, что с его помощью мы сможем приобретать *с большим шансом* кредиты от развитых капиталистических стран, сможем достичь *наиболее благоприятных* условий кредита. Для себя мы создадим более надежную экономическую и политическую платформу в противовес вымогательским происках развитых капиталистических стран и, наконец, откроется возможность для *более рационального использования приобретенных таким путем средств*, а также прочих источников.

Таким образом банк, с одной стороны, может стать катализатором экономических связей двух мировых систем, с другой стороны, — катализатором совершенствования разделения труда между социалистическими странами.

В работе я часто подчеркивал ожидаемые трудности первой фазы работы банка. Однако это является только незначительной частью действительно возникающих трудностей. Здесь в качестве примеров можно привести деятельность международных органов как в капиталистическом, так и социалистическом мире. Все это указывает на то, что *на деятельность банка не следует возлагать чересчур большие надежды, но и не чересчур* скромные, а надо считаться с реальным положением.

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Настоящая статья не является проектом создания банка, но, как об этом говорится в заглавии, в ней высказываются соображения относительно условий и необходимости создания такого банка. Автор не специалист по финансовым вопросам, а исследователь проблем развития мировой системы хозяйства. Он убежден в том, что создание одного учреждения такого характера могло бы принести пользу для решения экономико-стратегических задач, стоящих перед европейскими социалистическими странами.

TECHNICAL DEVELOPMENT AND THE SYSTEM OF LONG-TERM CREDITS IN THE COMMUNITY OF SOCIALIST COUNTRIES

F. Kozma

In his introduction the author states that the group of European socialist countries have reached a stage where technological revolution can widely unfold. The influence of national economic plans and management systems of the economy should be

concentrated on the acceleration of technological development. Possibilities of international economic cooperation should be used to this effect and efforts must be made to adapt technological achievements of the advanced capitalist countries as quickly as possible.

A strengthening of East-West economic relations could be solved both for the socialist countries and the capitalist ones maintaining economic relations with them in a more advantageous way if a highly efficient international system of long-term credits were brought about within the socialist community. It would be expedient to create within the CMEA an international investment bank whose major function would be to concentrate a considerable part of investment credits offered by third countries, their mediation for users as well as coordination — by means of financial measures — of imports of equipment and licences between countries of the community.

The study surveys the experiences of existing international investment banks (IBRD, EIB) and states that the credit system to be created must essentially differ from these. It must differ above all in that it will be called upon mainly to aid the technological reconstruction of dynamic branches, not to finance the investments in underdeveloped areas or those into capital intensive basic material industries or infrastructure. This may accelerate the return of capital and yield quicker and more palpable results for the national economies. This also involves that with about the same capital as the existing banks, an essentially bigger external source of growth may be obtained. Contribution to the capital should be divided between the participating countries in the proportion they reckon with using the resources collected by the banks. This does not mean that rigid credit quotas should be set. At the same time, it would be expedient to give preference to intra-limit credits.

When collating their economic development concepts and plans, the state planning agencies of the community must agree on the fundamental features of credit policy to be implemented by the bank: among others, also on the preferential treatment to be applied by the bank in respect of various branches. The agreement may comprise both administrative and economic restrictions as regards financing of non-preferred economic fields. With the progress of technological reconstruction these preferences may become milder and in some time the bank may be transformed into a regular international investment bank. Conforming to the directives of economic policies accepted by the countries, the bank may itself initiate investments in the fields important from the point of view of international cooperation, e.g. by asking for tenders in respect of financing.

A beneficial effect of the proposed system would be an improvement of the conditions of raising credits from third countries and of the technical and business conditions on purchasing equipment in these countries. On the other hand, with the aid of the proposed international credit system the international coordination of technical reconstruction in the key industries could be efficiently promoted.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 89—98 (1969)

G. GÖNCÖL

SOME ASPECTS OF THE THEORETICAL WORK OF EUGEN VARGA

The author's short sketch on Eugen Varga's contribution to the development of Marxist economic thought is a tribute — on the occasion of the 50th anniversary of the Hungarian Republic of Councils — to one of the most outstanding theorist of Marxist political economy and practical expert on the economic policy and a leading figure in the economy of the first socialist state in Hungary.

From Marx to Lenin

One of the early works of Eugen Varga is a booklet on Hungarian cartels. It was published in 1912 and republished in 1956 [1]. The 44 years that have elapsed between the two publication dates mark the unfolding of the imperialist epoch from its beginnings through two world wars, and two earth-shaking social revolution. Eugen Varga was an active contemporary of all these happenings. Deeply involved in the acute revolutionary situation after the first world war that led in Hungary to a short lived dictatorship of the proletariat, he was by force of circumstance as well as by his political and scientific radicalism drawn to a world outlook, to an interpretation of the revolutionary upheavals and changes in the world that was originally hammered out by Lenin. This transition from Marx to Lenin in the personal history of that generation to which Varga belonged, was none too easy. And for the following reasons:

The historical horizon of Marx was bounded by Czarism as the mainstay of European reaction. Beyond this horizon loomed the Russian revolution which in its advent was bound to change all basic facts of international politics. As can be gathered from his correspondence generally and from his correspondence with the great Russian Narodnik economists in particular, Marx was fully aware of this great question mark of future development both in Europe and Asia.

The great catalytic agent in the international working class movement was the first world war, or rather the stand to be taken and actually taken to that social catastrophe. It was on that question that every social democratic party was to be weighed and found wanting or otherwise.

The scale was established and the weighing was done by Lenin and his small bolshevik group in Zimmerwald and Kienthal. This was the parting of the ways between the two trends in contemporary social democracy.

Hungarian social democracy was in many respects of its theoretical orientation and its organizational setup an appendage of its German counterpart. Varga from 1907 on was the Hungarian correspondent and a co-worker of the theoretical journal of German social democracy, "Die Neue Zeit" edited by Karl Kautsky. He represented the left wing in the Hungarian social democratic movement. This left-of-center stand at that time meant necessarily being left of Kautsky. Rosa Luxemburg was against the strategy of wearing-down the enemy (Ermattungsstrategie) as expounded by Kautsky, Rosa in her brilliant pamphlet "Mass strike and Trade Unions" was for preparing the frontal revolutionary attack against the bourgeoisie and its state. She took her most powerful arguments against Kautsky's centrism, this German variety of Fabianism, from the great social upheaval of those times, the Russian revolution of 1905. Varga judged the Russian revolution of 1905 an harbinger of things to come, both in Russia and in Hungary; that was the upshot of an analysis of the agrarian reform in Russia written by him in 1907. In the great working class demonstrations for an extension of the ballot in Hungary in May 1912, Varga, as against the party leadership, was in favour of an extension and intensification of this movement for the right to vote; — his stand was somewhere between Kautsky and Rosa Luxemburg. At that time, Varga was totally ignorant of the work and significance of Lenin. In an extremely interesting preface to the 1956 edition of his book on the Hungarian cartels, he asked the reader to think of it that "the world in which this little book was written differed radically from the world today !" At that time, he says, nobody outside of Lenin and his Bolshevik group had any concrete idea, any strategic plan for the overthrow of bourgeois rule. But he adds that Lenin's writings were unknown in Hungary and even in the whole of Western Europe. And now comes the most revealing and in a sense the most pathetic admission: Varga says that he personally read only one article by Lenin prior to the first world war; an article published in "Neue Zeit" dealing with the controversy between Bolsheviki and Mensheviki. Varga writes: "I must confess, I couldn't get even an inkling of the significance of that controversy". (Around the same time, Rosa Luxemburg in a letter to Luise Kautsky says "I cannot make head or tail of Ilin's (Lenin's pen name) super-sophistication".) This ignorance of Lenin's teachings, said Varga, accounts for some of the main shortcomings of the booklet on Hungarian cartels; the same ignorance prevented the left wing of Hungarian social democracy from developing into a Communist trend on its own.

Nonetheless, his work on the Hungarian cartels shows Varga already at his best, as an independent Marxist thinker with the ability of original research work, with a pellucid style and a passionate devotion to the cause of socialism. Admirable is his verve in finding the chink in the armour of the adversary and pressing his attack to the utmost. We are fighting against the

anonymous power of capital, he says in the preface of the work; I am going to name the handful of big bankers, captains of industry, wealthy aristocrats that rules the roost in the Hungarian economy. And this is what he did. About 50 years later, it is the same characteristics that distinguish his marvellously keen analysis of the capitalism of the twentieth century, a primer written by him and published by the Soviet Academy of Sciences on the occasion of the 80th birthday of Academician Varga.

Problems of socialist economy

By then Academician Varga looked back on half a century of stormy weather. He did succeed in establishing contact and even a close working relationship with Lenin.

In the short-lived Hungarian Republic of Councils in 1919, Varga was in charge of the Commissariat of Economic Affairs. Problems of unheard-of magnitude and complexity arose and had to be dealt with on the spur of the moment, as it were. A new social order was to be built very literally on the ruins of the old; all the wherewithals necessary for such historic transformation lacking and the new workers' state called upon to defend itself against the overpowering onslaught of the vengeful Entente. That government of the workers had truly the historic mission to cope with the impossible. But then, that seems to be the essential task of every revolution. Revolutions will be necessarily lost if in its leaders all sense of reality is missing but no revolution can be won, no revolutionary power maintained without that elan vital for withstanding overwhelming odds and coping with the impossible. Realpolitik at such a historical juncture is always tinged and tainted with defeatism; and defeatism was the basic attitude of Hungarian social-democratic leadership. That's where the left-wing (Landler, Nyisztor, Varga) drew the line. That's where they crossed the Rubicon, breaking with social-democracy and becoming Communists.

After the fall of the Republic of Councils, Varga wrote a theoretical account of his experiences under the title "Problems of Economic Policy under the Dictatorship of the Proletariat" [2]. Foremost among these he listed the problem of labour productivity and labour discipline. In such historical situation the workers are called upon to defend their victory arms in hand on the battlefront. At the same time they must accomplish the twin task of increasing production on the homefront. All this at a time when the normal economic relations between town and countryside, between industry and agriculture are totally disrupted and the money becoming from a means of exchange a worthless piece of paper in the process of run-away inflation. All of this topped off by the overt and covert sabotage of the former rulers and their hangers-on. The difficulties are beyond belief; as a matter of fact it is a measure

of revolutionary enthusiasm if the new working class power is not overawed and overwhelmed by them.

To Lenin, these problems were familiar indeed as well as the means applied towards their solution, running the whole gamut from the "subotniks" to the New Economic Policy, NEP. Hence he read Varga's account with great interest and though fully aware of a number of theoretical naiveties, he still insisted to have it translated into several languages.

Varga had with all the vicissitudes of his life the good fortune of Lenin's acquaintance and guidance, something that gave him strength to stand his ground in all the bitter disputes and controversies in the center of which he stood between the two world wars and after the second world war. He also had the great satisfaction to be able to return to the same problems in Hungary after a long historical detour and on a much higher historical level. To the economic problems of liberated post-war Hungary he applied already the accumulated experiences of a lifetime spent in coping with these problems both theoretically and practically. From 1945 to 1948 the economic policy of the Hungarian government was aided to a considerable extent by the advice and guidance that Varga proffered at the invitation of the Hungarian Party and Government. His counsels were instrumental in stopping inflation and creating a sound currency in 1946 as well as in trying to work out a realistic approach to economic planning in 1948. Of particular interest are his remarks on the draft first five-year plan contained in an inter-office memorandum discussed in 1948 with the Hungarian Party leadership. Varga took exception to the planned increase of agricultural production which he considered much too low. "Agricultural production *must* be increased to a greater extent even at the expense of the tempo of industrial production!" He considered the planned increase in the utilization of fertilizers insufficient while on the other hand the projected increase of agricultural mechanization he criticized as much too high. "Judging by the English and Russian analogy I consider the output of 2,000 tractors annually far beyond the needs of present-day Hungary: before the time of general collectivisation probably no more than a 1,000 tractors can be usefully employed."

Varga insisted on long range planning of available labour power without which, he said, all investment targets lack realistic foundation. And finally and most importantly, he urged a more circumspect attitude towards the spacing of investment, towards investment policy generally. He considered the bunching of investment projects very harmful in its consequences. "It means that a considerable part of national production would be tied down for the time being in an improductive form without yielding any commodity surplus which in turn might lead to inflationary price increase. In working out the details of the plan one must take this into due consideration: it is far more sensible to start fewer investment projects but complete them at a faster

clip than to start many things at once and complete them all at the end of the 5-year plan" [3].

One is struck by the economic wisdom contained in these brief remarks. One can't help thinking how much trouble could have been saved by taking them more to heart particularly as far as investment policies are concerned.

Theory of the general crisis of capitalism

Varga was a highly skilled economic chronicler of the causes and consequences, of the antecedents and the aftermath of two world wars as well as an analyst of the greatest economic crisis in the history of capitalism, the great crisis of the inter-war period. His findings were very relevant, both from a theoretical and from a practical viewpoint. As a theoretical analyst Varga rose to the occasion most of the time. It is interesting to compare this economic adviser of the revolutionary working class with the highly skilled economic adviser of the bourgeoisie, J. M. Keynes. Such a comparison is not altogether out of place; Keynes dealt with the same problems as Varga but they were standing on two different poles of our economic and political globe.

The situation immediately following the first world war was described and analyzed by Varga in a report submitted to the Congress of the Communist International. It was published in 1923 under the title "The Crisis of the Capitalist World Economy". Just about the same time, in 1920 to be exact, Keynes celebrated report was published on the same subject after the great disappointment of the liberal intellectuals with the Versailles Conference. Keynes' report was entitled "Economic Consequences of the Peace". It is very interesting indeed to observe the two distinct and different methodological approaches to the same problem. Succinctly, the thorny problem of the time was: how on earth could vanquished Germany pay the victors the reparation demanded of her; and if she could, what consequences would that have for the other capitalist countries and world capitalism as a whole. Keynes proved brilliantly, chapter and verse, *a)* that Germany cannot pay the reparations asked of her and *b)* that every effort to do so could have only disastrous consequences for Germany, for her imperialist rivals and for the capitalist world economy as a whole.

In Varga's analytical scheme the problem of reparations was subordinate to the much larger problem, to the over-riding issue of how to restore international economic equilibrium hopelessly destroyed by the war and its consequences. The crux of the overall situation seemed to Varga to lie in the cleavage of the world into two parts: *a)* The field of over-production; those countries, like the United States, that came out of the war with a greatly enlarged production capacity and with no devastation of their own national territory. *b)* The territories of under-production to which belonged Germany, Russia,

Poland, the constituent parts of the former Austro-Hungarian monarchy with the exception of Czechoslovakia, the Balkan states — all in all about 300 million people. Varga's considered opinion was: "The danger to the capitalist social system inherent in the situation of the territories of under-production is no smaller than the danger inherent in the situation of the territories of over-production. In the latter we have unemployment with the living standards of the population employed only slightly reduced, in the former we have a disastrously low standard of living with full employment. It is hard to say which of the two conditions is more intolerable" [4].

The only way out of the impasse, the only serious solution in Varga's opinion was a large-scale state financed and internationally guaranteed capital export for European reconstruction. Private capital exports wouldn't turn the trick, Varga insisted correctly, because the problem at hand was far above the capacities and far below the profit expectations of private capital.

Stimulating and provocative as were the ideas contained in this analysis of the economic consequences of the first world war, the book published a quarter of a century later, entitled "The Capitalist Economy after the Second World War" had, if possible, an even greater impact on the thinking of its contemporaries. Its main emphasis lay on the greatly increased role of the state in the capitalist countries and the new economic functions of the state in these countries. Mainly because of this thesis the book became the target of furious attacks which rose to a crescendo of excoriating vituperations. Varga, as was his wont during his whole adult life, absorbed the blows with stoic calm till in the end he was forced to recant not so much by his dogmatic adversaries as by his sudden "friends" in the Western press. As between the dogmatic blockheads and bourgeois "defenders" who wanted to use the controversy for an attack against the Soviet Union, Varga considered the latter were by far the greater abomination.

Yet one of the outstanding marxist economists of the Western world, Maurice Dobb claimed Varga was right in an interesting article entitled "Some Economic Revaluations" [5] where he wrote: "I think we have got to face it that these state capitalist tendencies have assured for capitalism a certain degree of stability that it did not possess in the inter-war period. At any rate, Varga was right after the war in forecasting for capitalism an upward phase and his critics were to this extent wrong. One can admit this without swallowing neo-Fabian phantasies about the "American miracle" and a rejuvenated crisis-free capitalism that can evolve smoothly and imperceptibly into a "Welfare Socialism".

If anything, Varga could have been criticised for understating a little unduly the possibilities of the capitalist state and the means at its disposal. It was this attitude that induced him in the last chapter of that book to say on the basis of theoretical considerations that "governmental measures can

reduce the danger of chronic mass unemployment only to an infinitesimal extent". This was obviously an incorrect judgment, greatly underestimating the actual possibilities of state monopoly capitalism in the field of creating employment.

This basic disbelief in the possibilities of state monopoly capitalism to create employment or effectively to counteract the tendencies inherent in capitalism towards mass unemployment, was nurtured by the experiences of the great crisis and the depression of a particular kind in the 1930ies. If Varga's dogmatic critics levelled the charge against him that he made too much of the possibilities of state monopoly capitalism, one of the leading economists of the French Communist Party, Paul Boccara in the International Conference on State Monopoly Capitalism in Paris, May 1966, reproached him with under-rating the significance of state monopoly capitalism, particularly as far as its positive aspects are concerned. "Above all he does not see the new weapons that the objective processes leading to state monopoly capitalism offer to the struggle of the proletariat, to the democratic revolutionary movement" [6].

Boccara's criticism of Varga's theoretical stand, however, refers specifically to the latter's evaluation of capitalist experience in the inter-war period and it is hard to see how at that time and from that vantage point Varga, or any serious marxist for that matter, could have given that positive verdict on state monopoly capitalism that Boccara expects. That was for objective reasons not in the cards, as it were; at that time all tendencies of state monopoly capitalism were moving against the revolutionary aspirations of the workers and in the direction of unleashing a new world war. Even the theoretical reflection of these trends in Keynes "General Theory" makes no bones about it: he talks about a "non-revolutionary solution" that could be made to work if and only if "the worker is not class conscious".

Thus it is not altogether fair to criticize Varga from such hindsight as Boccara does and not to mention Varga's posing the problem of the role of the state anew in his celebrated book published after the second world war.

At any rate, Varga's judgment merits a second thought, both in its theoretical and practical aspects.

In a report submitted to the VI. Congress of the Communist International and puslished in 1928 under the title "The Decline of Capitalism after the Period of Stabilization" [7] Varga pointed with particular emphasis to the trend in the developed capitalist countries and particularly in the United States towards the reduction of the number of workers employed by industrial capital. This was one of the chief indicators on the basis of which he could confidently forecast the outbreak of the great crisis of 1929. Now in the book Boccara refers to, "The Great Crisis and its Political Consequences", Varga stresses that the situation which Marx envisioned as a possibility in the extreme unfolding of the chief contradictions of the capitalist system has

actually materialized. "It is impossible to place the army of unemployed in production again as was the case with the industrial reserve armies in boom periods before the crisis of capitalism... Thus the situation has arisen which Marx foresaw as a hypothesis: "A development of the productive forces which would diminish the absolute number of labourers... would cause a revolution . . ." And Varga concludes: "The development of productive forces has reached this stage; the period of the general crisis of capitalism is the period of the social revolution" [8].

That the revolutionary situation in Germany ended temporarily in the defeat of the German working class and the advent of Hitler while in the United States it issued in the many-faceted New Deal processes, while generally on a world scale it blew up in global war, — all of this does not change the fact that Marx' scientific hypothesis was verified in this period of the history of capitalism.

Underlying the general crisis of capitalism, the crisis of the capitalist system on its highest level of development is the steadily increasing production capacity coupled with the steadily decreasing employment capacity of the monopoly-controlled production apparatus. Varga clearly traced these trends, almost before anybody else, in the structure of American employment and unemployment and pointed to the double tendency of stagnation: decreasing productive employment side by side with increasing improductive employment up to the point where improductive employment matches and even surpasses productive employment as a whole. This was the case in the crisis-ridden United States in the inter-war period and it remained the case forever after. The capitalist solution of this contradiction was also clearly discernible and underlined by Varga: the switch-over to war economy for the preparation of an armed clash and finally of war itself. Only in the framework and for the duration of a war economy is increasing productive employment compatible with constantly decreasing mass consumption.

All of this, however, leaves the problem of peace-time trends of production and employment open. What is the peacetime equivalent of such a war economy? What must be the economic policy practiced in the framework of state monopoly capitalism in general? What are the limits and what is the effectiveness of such economic policy aiming at full employment? What is the connection between the general crisis of capitalism and state monopoly capitalism?

Varga's struggle against dogmatic distortions

These problems naturally were not even remotely solved by the analysis of Varga. But they were outlined and projected and this was no mean achievement in the general situation of dogmatism which considered modern capita-

lism as a mere replica of the old; mistook stagnation for no change at all, and therefore finally mistook even growth for stagnation.

Varga delivered his main theoretical battle against bourgeois and reformist illusions on the one hand and against the above-mentioned blighting dogmatic vulgarization, on the other. There is great historic merit in this keeping the flame of creative Marxism burning against very heavy odds.

His last book published posthumously, "Studies in the Political Economy of Capitalism" [8] is almost entirely devoted to settling long overdue accounts with some of the main tenets of dogmatism. There is, among other things, a devastating criticism of some of the hairbrained theories of the absolute impoverishment of the working class in the advanced capitalist countries. He objects to "our dogmatists" blithely disregarding both the most obvious facts and the most elementary requirements of logic. He mentions that from 1947 to 1953 it was the official view that absolute impoverishment in the whole of the capitalist world has a permanent character. Some of the dogmatists even insisted that misery is constantly growing and real wages are constantly falling. To Varga's repeated reminder that real wages, even in case of a very moderate rate of decrease, would fast approach zero in a very short period, they would not pay any heed. They would not listen to the argument that if real wages would fall in the first year by no more than 0.5 per cent and in every further year by no more than 0.1 per cent — this alone would reduce real wages by one half within 28 years.

In a very interesting paper, the author deals with the problem of labour aristocracy after the second world war. Labour aristocracy is Lenin's term for a definite part of highly skilled, better paid workers in imperialist countries; actually a layer of the working class being bribed by the crumbs of colonial extra-profits. Varga says that this definition has become too narrow and is in need of modification in the light of the structural changes taking place in the imperialist economy. "Labour aristocracy itself, its composition, the sources of its privileged position, just as all the other phenomena of capitalism underwent a considerable change in the course of capitalist development and particularly after the second world war."

Contained in this volume we also have a paper of high scientific value on price theory, inflation and gold.

All of this serves, in the intention of Academician Varga, the purpose of reducing the last bastions of the dogmatic vulgarization of Marxism and striking out on new avenues of marxist research. The book of the 84-year old marxist revolutionary thinker is written with the same youthful verve as some fifty years before that his first attack on imperialism "The Hungarian Cartels". To the end Varga's attitude remained that of true scientific curiosity in the passionate revolutionary spirit of Marx and Lenin.

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НЕКОТОРЫЕ ЧЕРТЫ ТЕОРЕТИЧЕСКОЙ РАБОТЫ Е. ВАРГА

Д. ГЭНЦЭЛ

Автор в честь 50-ой годовщины Венгерской советской республики дает краткий обзор о некоторых чертах научной творческой работы одного из ведущих экономистов, бывшего комиссаром Венгерской советской республики, Евгения Самуиловича Варга.

Он показывает, как Е. Варга, уже в 1910-ых годах бывший значительным левым теоретиком-социал-демократом, стал одним из самых известных экономистов мирового коммунистического движения. Кратко касаясь роли Варга в экономической политике Венгерской советской республики, автор показывает, какую помощь оказал Варга два с половиной десятилетия спустя рабочему классу, снова взявшему власть в свои руки, в осуществлении правильной экономической политики в освобожденной Венгрии. Роль Е. Варга в мировом коммунистическом движении сравнивается в статье с ролью Кейнса, являвшегося в свою очередь главным экономическим советником буржуазии. Автор подчеркивает значение написанных Е. Варга в двадцатых-тридцатых годах трудов, в которых анализируются экономическое положение капитализма, кризис капиталистической мировой экономики. Он оспаривает некоторые положения, высказанные французским экономистом-марксистом П. Боккара относительно Варга, и, наконец, показывает, как боролся Варга против догматического искажения марксисткой политической экономии.

REVIEWS

Ж. МАУШЕЦ

НАУЧНЫЙ СИМПОЗИУМ СПЕЦИАЛИСТОВ ПО ТРУДУ СТРАН-ЧЛЕНОВ СЭВ

Венгерской делегацией в Постоянной комиссии СЭВ по экономическим вопросам 25—27 сентября 1968 года в Будапеште был организован первый научный симпозиум специалистов по труду. Основной доклад «Рациональное использование ресурсов рабочей силы и структурное изменение занятости в социалистических странах» первого будапештского официального симпозиума был подготовлен Институтом экономики труда Берлинского экономического института ГДР, под руководством Э. Саксе. К основному докладу из семи стран-участниц (Болгарии, Чехословакии, Польши, ГДР, Венгрии, Румынии, СССР) поступило 24 доклада; на совещании лично приняло участие 46 специалистов, и в трехдневной оживленной дискуссии выступили 33 участника.

После приветственных слов *И. Надя*, руководителя венгерской делегации, трехдневное совещание открыл *И. Фриш* (ВНР), подчеркнув важность темы симпозиума и растущее значение связанных с ней исследований.

Со вступительным докладом по поручению организационной комиссии выступил *Я. Тимар* (ВНР), ознакомивший участников с важнейшими мнениями, содержавшимися в поступивших докладах и нередко довольно-таки противоречивших друг другу.

Дискуссию, развернувшуюся на основании докладов, можно разделить на два круга проблем. Один из них охватывает вопросы рационального использования ресурсов рабочей силы и отраслевых структурных изменений занятости, в то время как другая крупная тема включает в себя вопросы обеспеченности квалифицированными кадрами и их подготовки.

В поступивших докладах большее место занимала первая тема. Если кратко суммировать содержание поступивших на симпозиум докладов, то следует отметить, что в них — а также в ходе последовавшей дискуссии — одним из чаще всего поднимаемых вопросов оказалась трактовка понятия полной занятости. В социалистических странах за минувшие два десятилетия удалось ликвидировать безработицу и значительно повысить число занятых. В ряде стран, однако, уже достигнут верхний предел занятости. В связи с этим многие докладчики указывали, что полная занятость и максимальный уровень занятости не являются тождественными понятиями. Многими была затронута также проблема производительности и эффективности живого труда. В значительной части докладов рассматривались вопросы обеспечения занятости женщин, пожилых возрастных групп и молодежи. Ныне уже в ряде социалистических стран единственным возможным резервом рабочей силы является увеличение занятости женщин, и поэтому по ходу дискуссии немалое место было отведено вопросам облегчения их труда.

Из фактического материала и из выводов докладов явствовало, что происшедшие до сих пор и ожидаемые изменения отраслевой структуры

занятости тождественны в различных социалистических странах лишь по своей тенденции, по темпам же развития и по отраслевому распределению имеются весьма значительные расхождения. Многие авторы анализировали также влияние изменений экономической структуры на рабочую силу, доказывая, что в будущем надо будет обращать на эту взаимосвязь еще больше внимания. Другие же участники выдвигали на передний план проблемы территориальной занятости.

Другой круг проблем охватывал взаимосвязи между научным и техническим развитием, уровнем обучения, а также степенью квалификации и образования населения. Общеизвестны результаты, достигнутые социалистическими странами, например, в отношении уровня обучения, — и все же при оценке достигнутого развития в присланных докладах отразились различные взгляды на этот вопрос. Многие указывали, например, на необходимость уделения большего внимания качеству подготовки кадров и более эффективному использованию труда квалифицированных работников. Исключительно резко был поднят вопрос о том, соответствуют ли характерные для социалистических стран крупные капиталовложения в обучение по своей структуре и уровню степени экономического развития и ожидаемому развитию этих стран.

Последовавшая за вводным докладом и продолжавшаяся, по существу, три дня дискуссия дополнила содержание докладов рядом интересных аспектов, сведений и информаций и носила исключительно оживленный характер. Выступивший первым в дискуссии *В. Костаков* (СССР) развивал, главным образом, мысль о том, что при социализме нет и не может быть противоречий между эффективностью использования ресурсов рабочей силы и полной занятостью, так как социалистическое государство воздействует как на спрос, так и на предложение рабочей силы. Со стороны спроса на рабочую силу сбалансированность может быть достигнута прежде всего посредством капиталовложений. В последние годы, однако, все более интересным становится вопрос о том, какими факторами определяются запросы населения в отношении места работы, и как можно на них воздействовать. Этому вопросу, однако, в социалистических странах до сих пор посвящали мало внимания.

Выступивший следующим *Е. Маневич* (СССР) остановился на теоретических вопросах полной занятости. По его мнению, при социализме окончательно ликвидируется безработица и обеспечивается рациональное использование рабочей силы. Примером этому может послужить Советский Союз, да и остальные социалистические страны. Изменившиеся производственные отношения и то обстоятельство, что мы в состоянии воздействовать на предложение рабочей силы и предвидеть потребность в ней, исключают возможность безработицы.

А. К. Добрев (Болгария) подчеркивал, что в менее развитых социалистических странах полная занятость сложилась в противоречивых условиях — при низкой производительности труда и низких доходах. Низкая производительность труда вытекала из недостаточно высокого технического уровня, хотя значительная часть накоплений и обращалась на современные средства производства. В результате этого, однако, доходы пришлось держать на низком уровне. В то же время так называемое экстенсивное экономическое развитие позволило ликвидировать безработицу. Зато сейчас, при переходе от экстенсивного к интенсивному этапу развития, может уже

случиться, что предложение рабочей силы превзойдет спрос на нее, и при отсутствии достаточного капитала может наступить угроза безработицы. Во избежание ее либо следует умерить темп интенсивного развития, либо предоставить возможность для занятости рабочей силы за границей. Нельзя, однако, удовлетворяться такими абстрактными заявлениями, что социализм обеспечивает полную занятость в силу его законов. По мнению *К. Вигналика* (Чехословакия), при определении полной занятости следует исходить из того, что рабочая сила должна использоваться рационально, и что равновесие предложения и спроса должно достигаться и регионально и по слоям населения. В ходе социалистического строительства необходимо решить целый ряд исключительно важных экономических вопросов, однако возможно, что своего решения ожидает еще много более серьезных социальных вопросов. Безработица, по его мнению, есть социальная проблема. До сих пор, однако, экономические и социальные вопросы не отделялись друг от друга, и поэтому не находились наилучшие средства для их решения. Однако необходимо учесть, что первичными являются экономические вопросы, так как только путем экономического развития можно обеспечить разрешение социальных проблем. По мнению *Е. Воронина* (СССР), безработица при социализме сознательно допустима лишь с переходным и временным характером, в качестве орудия экономической политики же и притом с *устойчивым* характером — неприемлема. Резервной армии труда при социализме быть не может. Если вследствие экономического развития высвобождается рабочая сила, то следует в организованном порядке обеспечить ее переквалификацию и позаботиться о ее трудоустройстве.

Т. У. Димитров (Болгария) подчеркивал, что социалистический строй отличается от других как раз тем, что при нем ведется плановое хозяйство, и, таким образом, заранее можно определить количество и состав рабочей силы, требующейся для выполнения производственных задач. «Достижение согласованности зависит от наших способностей» — сказал оратор, она не складывается автоматически, для этого следует найти наиболее подходящие средства.

Член венгерской делегации *О. Гадо* развил мысль о том, что хотя с помощью планирования и можно достичь равновесия спроса и предложения рабочей силы, однако проблема возникает, когда установки народнохозяйственного плана следует претворить в жизнь, осуществить их на практике. Этого невозможно достичь посредством плановых директив, для создания равновесия требуются и иные средства. Если же между полной занятостью и экономической рациональностью имеются противоречия, то в социалистических странах они ни в коем случае не могут решаться посредством безработицы. Полная занятость не может быть целью предприятия, ее обеспечение является общественной и народнохозяйственной задачей. *Й. Рожа* (Венгрия) в своем выступлении подчеркнул, что рациональное использование рабочей силы осуществляется в том случае, когда ее занятость приносит пользу, превышающую связанные с ней издержки; не следует любой ценой повышать уровень занятости, а надо стремиться к обеспечению рациональной занятости.

Ю. Кормнов, руководитель советской делегации, считал, что решающее значение имеет оценка занятости с экономической стороны. Однако человек — это не только производительная сила, но и субъект, которому служат все производительные силы общества. Занятость не следует фетишизиро-

вать. Важным является обеспечение эффективной занятости, и все производственные факторы должны комплексно изучаться в этом аспекте. *Человек и время не могут быть отложены в резерв, и их использование должно приумножить материальное достояние общества. Если кто-нибудь считает допустимой ограниченную безработицу, то это свидетельствует о том, что он не хочет использовать резервы. Это указывает на наличие противоречия, и в таком случае ошибочна система хозяйственного планирования и управления.*

Я. Тимар (Венгрия) в своем выступлении подчеркнул, что социалистическое государство не может стремиться к решению задачи рационального хозяйствования за счет безработицы. В то же время в ходе развития могут возникнуть противоречия между стремлением к полной занятости и требованиями экономической эффективности. Один из путей решения этого противоречия состоит как раз в усилении мобильности рабочей силы. Введение системы пособий по безработице — которое по существу правильнее было бы называть пособием по трудоустройству, — может быть эффективным средством решения этого противоречия и способствовать формированию рационального разделения труда.

Мобильность рабочей силы составляла тему очень многих выступлений. Многие подчеркивали, что следует различать наносящую народному хозяйству ущерб текучку рабочей силы и ее мобильность, обязательно требующуюся с точки зрения экономического развития. Так, например, *Е. Маневич* (СССР) указывал, что одна из причин местами ощущаемой нехватки рабочей силы заключается как раз в недостаточной мобильности рабочей силы, а также в том, что до 1967 года в Советском Союзе не заботились в организованном порядке об устройстве высвобождавшейся рабочей силы.

Э. Саксе (ГДР) в своем выступлении различал два вида высвобождения рабочей силы. Один из них — когда рабочая сила высвобождается постепенно, в результате технического прогресса, который, однако, не влияет на структуру народного хозяйства. Другой вид мобильности возникает при ликвидации отдельных отраслей, когда о переподготовке и устройстве рабочих следует заботиться в организованном порядке. По мнению *Л. Данилова* (СССР), организованная перегруппировка рабочей силы в интересах народного хозяйства составляет в среднем $\frac{1}{3}$ всех случаев изменения места работы. Это необходимый процесс, так как только таким образом можно обеспечить потребность развивающихся отраслей в рабочей силе. *Й. Рожа* (Венгрия) видит значение мобильности рабочей силы как раз в том, что через нее, возможно, каждый может найти наиболее подходящее ему место работы. Новая система хозяйственного управления в Венгрии действует как раз в том направлении, чтобы рабочая сила передвигалась туда, где ее можно занять с наибольшей эффективностью. *Мобильность рабочей силы* является важной темой чже и потому, что в большей части социалистических стран в последующие годы численность работоспособного населения не возрастет, и даже произойдет некоторое старение ее.

Е. Яковлева (СССР), анализируя в своем выступлении эти тенденции, констатировала, что в большинстве стран уже и сельское хозяйство не представляет резерва рабочей силы, и именно поэтому необходимо стремиться к использованию всех резервов рабочей силы, способствуя ее подвижности экономическими, а не административными мерами. *Е. Воронин* (СССР) дополнил это тем, что ресурсы рабочей силы сокращаются и за счет повышения числа учащихся.

На симпозиуме в качестве насущной задачи многие указывали на осуществление *кооперации в области рабочей силы* между социалистическими странами. *А. К. Добрев* (Болгария) торопил разработку необходимых для этого условий. *А. Райкевич* (Польша) подчеркнул, что основу для этого представляет различное демографическое положение отдельных стран; в случае избытка рабочей силы следует предоставить возможность для ее устройства на работу в других странах. *Ю. Кормнов*, руководитель советской делегации, информировал участников о том, что между Советским Союзом и Болгарией имеется такая кооперация на основании межгосударственного соглашения. Самое главное в этом случае — сказал он, — это признать, что в рамках международного разделения труда нередко можно рациональнее занять рабочую силу за границей, чем у себя в стране. *К. Вигналик* (Чехословакия) указывал, что в Чехословакии в этой области имеются большие традиции. В рамках действующего чехословацко-польского соглашения в чехословацкой текстильной промышленности работают приблизительно 8000 польских граждан — в большинстве женщины. Он подчеркивал: в Чехословакии всегда придерживались того мнения, что свободное передвижение рабочей силы между социалистическими странами ускорит развитие этих стран; социалистические страны отстали в этом отношении.

Почти все выступившие занимались вопросом *уровня занятости женщин*. Можно сказать, единое мнение сложилось о том, что повышение занятости женщин осуществимо лишь при значительном развитии сферы обслуживания. *В. Костаков* (СССР) подчеркнул, что устройство женщин на работу — закономерный исторический процесс, и в перспективе уровень занятости женщин не должен отличаться от занятости мужчин. Иной вопрос, однако, за какое время удастся этого достигнуть. Во всяком случае ускорить темпы невозможно без расширения сферы услуг и облегчения домашней работы. *Г. Мюллер* (ГДР) также остановился на вопросе занятости женщин. В ГДР в будущем расширение числа занятых в существенной мере возможно лишь за счет женской рабочей силы. В то же время дальнейшее увеличение занятости женщин осуществимо лишь при повышении их квалификации, причем для этого необходимо разработать специальные формы. По мнению *К. Вигналика* (Чехословакия), существует определенный верхний предел занятости женщин, по всей вероятности, уже достигнутый в ГДР и в Чехословакии, и, таким образом, — в этих двух странах — может быть, даже невозможно увеличить занятость женщин. *М. Драган* (Румыния) придерживался того мнения, — обосновывая его данными Румынии, — что повышение экономической активности женщин не влияет на рождаемость. *Хоранинэ* (Венгрия) оспаривала мнение руководителя румынской делегации, показав на примере венгерских и международных данных, что повышение экономической активности в весьма значительной мере вызывает сокращение рождаемости.

Во второй части дискуссии выступившими были затронуты проблемы подготовки квалифицированной рабочей силы и обучения. *И. Надь*, руководитель венгерской делегации, подчеркнул, что сфера подготовки рабочей силы — например, обучение — должна отвечать требованиям технического развития и изменяющейся экономической структуры. Обучение удовлетворяет общественные и экономические потребности, повышая таким образом общую образованность для того, чтобы члены общества могли правильно разбираться в затрагивающих их вопросах. Но с другой стороны следует

считаться с тем, что быстрое техническое развитие предъявляет новые требования к человеку, а, таким образом, и к системе обучения. Необходимо достигнуть того, — сказал оратор, — чтобы подготовка специалистов опережала техническое развитие и, таким образом, было достигнуто в сфере обучения соответствие общих и специальных знаний.

Из выступлений выявилось, что во всех социалистических странах прилагаются большие усилия к усовершенствованию системы обучения. По мнению *В. Немченко* (СССР), настоящая система обучения неэффективна потому, что имеется разрыв между школой, дающей общее образование, и подготовкой специалистов, и, таким образом, молодежь по окончанию школы не подготовлена полностью к работе ни в отношении квалификации, ни в социальном аспекте. *В. Костаков* (СССР) в своем выступлении остановился на проблеме обучения в высших учебных заведениях: «если рассматривать сравнительные международные сведения, — сказал он, — то мы можем быть довольными, если же рассматривать уровень, качество обучения в вузах, то у нас отнюдь нет причин для удовлетворения». По мнению *К. Вигналика* (Чехословакия), система школьного обучения может дать лишь основу для подготовки специалистов, но не окончательную специальность. Одним из недостатков школьной системы он считает то обстоятельство, что она слишком поздно отбирает способных людей, и в то же время остается нерешенным обучение трудновоспитуемых детей. 18% детей не заканчивают неполной средней школы. Это положение, несомненно, следует изменить, ведь этим этическим вопросом далеко не следует пренебрегать. *М. Гендель* (ГДР) рассказал о том, что в стране осуществляется реформа как в общем, так и в специальном обучении. Уже разработаны новые принципы подготовки квалифицированных рабочих, в рамках которой, например, значительно сократилось число профессий, а срок обучения с трех лет сократился до двух.

Многими был затронут и вопрос выбора профессии, специальности. *В. Дуцар* (Чехословакия) сообщил о том, что согласно их исследованиям, $\frac{1}{4}$ молодежи выбирает специальность случайно, на основании информаций, поощрения со стороны родителей. А из этого следует, что информировать следует в первую очередь родителей.

Часть выступивших исключительно резко ставила вопрос о рациональном использовании квалифицированной рабочей силы. *В. Дуцар* (Чехословакия) говорил о том, что обеспечение соответствующей занятости квалифицированным кадрам является насущной проблемой. Имеются предприятия, где только 20—30% специалистов с высшем образованием занято на должностях, отвечающих их образованию. Было бы целесообразно на основании международных сравнительных данных изучить и использование квалифицированной рабочей силы.

В. Немченко (СССР) развил мысль о том, что при устройстве молодежи на работу одна из самых значительных проблем заключается в отставании уровня технического развития на данном предприятии от уровня подготовки специалистов, что вызывает определенные напряженные моменты. Естественно, в результате технического развития эти неувязки автоматически исчезают, но в то же время возникает ряд новых мест работы, на которых работать скучно и неинтересно. Такие напряженные моменты должны устраняться при помощи социальных и экономических мер.

Всеми выступавшими по этой теме подчеркивалось, что обучение и потребность в специалистах могут планироваться лишь на основании пер-

спективных планов. *Я. Ковач* (Венгрия) информировал участников о том, что в Венгрии разработка планов перспективной потребности в специалистах началась в 1963 году. Однако дальнейшая работа требует использования математических методов. В частности, следовало бы исследовать, каким образом повлияют изменения структуры народного хозяйства на предусматриваемые количественные и качественные потребности в специалистах. Было высказано и такое мнение, что прогнозы в отношении подготовки квалифицированных кадров следовало бы составлять не только до 1980, но и до 2000 года. *М. Гендель*, руководитель делегации ГДР, назвал их перспективными решениями стратегического характера.

Симпозиум закрыл *И. Надь*, руководитель венгерской делегации, давший оценку научным итогам трехдневного совещания.

K. KÁDAS

8th EUROPEAN CONGRESS OF THE REGIONAL SCIENCE ASSOCIATION

The 8th European Congress of the international Regional Science Association (RSA) was organized in Budapest between August 27 and 30, 1968. The scenes of the former congresses in reverse chronological order had been: The Hague, Vienna, Cracow, Geneva, Lund, Zurich, and The Hague again. (Next year's conference will be held in Copenhagen.)

The international scientific discussion lasting four days — organized in the building of the Hungarian Academy of Sciences by the Regional Section of the Hungarian Economic Association, the members of which are for the most part also members of the RSA — was a memorable review of the experts of *regional science*. At the meeting certain recent, important results and research objectives of this complex science were subjected to a lively and manysided discussion. The number of foreign delegates was 86 (of whom 25 were from socialist countries) and about the same number of Hungarians participated. As in the case of the European Congresses of the RSA organized in previous years, the Conference of the Peace Research Society (International), this time the 5th, was also organized almost simultaneously and partly jointly with the Budapest Congress of the RSA, partly with common participants.

The subjects included in the agenda of the Budapest European Congress reflected well the results and objectives of the RSA, and of the scientific researches conducted almost all over the world in accordance with the objectives of regional science. The latter, as it is well-known, can be formulated as follows:

scientific establishment of the *regionally optimum* development of the processes of socio-economic activity, i.e. the most favourable one also by territorial division, in accordance with the official socio-economic system of preferences. This, of course, requires and results in researches and planning branching out in many directions and keeping in view several kinds of management-decision levels, as well as employing various methods. Surely, the processes of socio-economic activity are manifold themselves, they are also very complex and their spatial-territorial pattern may often assume versions difficult to count, not to mention the great methodological difficulties and costs the handling and transformation of all these involves from the point of view of

information. Fortunately, not only the financial sacrifice is great which the realization of the outlined main objective of regional science demands, but the obtainable results — which are then to the advantage of the economy for several years — can be also unusually great. These ideas were almost consistently voiced in the papers of the Congress (altogether 16) and, last but not least, in the great number of the contributions (altogether 40).

In the forenoon of the *first day* of the Congress, Professor W. ISARD (Philadelphia), the executive chairman of RSA, gave an opening address within the framework of the first subject on the agenda entitled "Structure of Urban-Agricultural Systems", and he expounded his study "Economic-Ecology System for Regional Planning". CH. L. LEVEN's (Washington) paper presented under the title of "Determinants of the Size and Spatial Form of Urban Areas" and commented by Professor W. ISARD, as well as J. SEBESTYÉN's (Budapest) lecture on "Some Actual Problems of a Rational Location in Hungarian Agriculture" and his paper with a similar title were discussed, presenting the location problems of large-scale socialist agriculture. The lecture was well complemented by the contribution of R. ANDORKA (Budapest) entitled "Demographic Factors in the Planning of Location of Economic Activity". In the afternoon of the first day, Professor G. JÁNDY (Budapest) expounded his paper on "Some Problems of Location in Operation Research", as well as the recent research findings of the author of this review within the framework of the subject of Location and Regional Methodology.

On the *second day* (in the forenoon), Y. OKANO's (Tokyo) paper entitled "Implications of Population Movement for Municipal Budgets", followed by the paper of two Hungarian urbanistic research workers, L. FODOR and I. ILLÉS within the framework of the subject of Applied Studies in Regional Science, containing important research findings and propositions from the point of view of the further growth of Budapest and entitled "Some Problems of Metropolitan Industrial Agglomeration".

A. COLOIA (Milan) also discussed the questions of urbanization and industrial settlement, illuminating the problem by actual cases.

In the afternoon, the subject was "Models of Interregional Systems". In connection with this, Academician N. NEKRASOV (Moscow) expounded the theses of his paper: "Problems of Distribution of Industry in the Union of Soviet Socialist Republics (Theory and Practice)". Then S. A. NIKOLAEV and A. N. ARIANIN (Moscow) presented their study "Choosing the Proper Sites of Location of Industrial Enterprises within an Economic Region".

On the *third day*, at the session held jointly with the Peace Research Society (International) the subject: "The World as a Multi-Regional System: Theoretical and Empirical Approaches" was on the agenda. In connection with this, Professor W. ISARD's paper "Toward a More Adequate General Theory and Approach to Conflict Resolution" containing new ideas of great significance was discussed in detail, mainly by Professor M. BECKMANN (Bonn).

N. P. GLEDITSCH's (Oslo) paper entitled "The International Airline Network: A Test of the Zipf and Stouffer Hypotheses" was also on the agenda.

In the afternoon, K. PORWIT's (Warsaw) study "Theoretical and Methodological Questions for the Construction of Comprehensive Models in Regional Planning" was discussed. The propounded ideas were well supplemented by the proposals of J. KORNAI (Budapest). Then W. ALONZO (Berkeley University) presented his paper "On New Concepts and Theory of Location".

On the *fourth day*, within the framework of the subject of "Spatial Interaction-Transportation Systems", K. BALKUS (Harvard University) discussed a very interesting problem — becoming more and more important with the growth of urbanization — in his lecture, and paper on "Metropolitan Highway System in the Framework of Social Welfare Decisions". During the closing session in the afternoon, T. HERMANSEN (U. N. Geneva) presented his paper on "Information System for Regional Development", then Professor W. ISARD (Philadelphia) expressed his appreciation of the results and the scientific significance of the Congress in his closing lecture. His concluding words were joined by Academician N. NEKRASOV (Moscow), as well as by Professor W. WARNTZ (Harvard University).

Finally, in his closing address, Professor K. KÁDAS (Budapest) Vice President of the Hungarian Economic Association, expressed his thanks for the active participation and valuable scientific co-operation of the participants, and thanked Professor W. ISARD, the executive chairman of the RSA for his great help in respect of organization and in overcoming the problems arising in the course of the Congress.

At the Conference of the *Peace Research Society* (International) lasting only for 2 1/2 days, which, apart from a joint forenoon session was held separately, 9 papers were discussed. About 25 contributions were made during the debate. The subjects of the individual sessions were the following: Studies of the Multi-Nation System, Bargaining Analysis, Political Theory, International Law and Communication, The World as a Multi-Regional System.

The sessions of the Congress and of the Conference were coloured by receptions offering opportunities for a scientific exchange of views, such as the reception of the Hungarian Economic Association, that of the Hungarian National Peace Council and the reception of the Metropolitan Council, as well as by minor discussions at the Scientists' Club of the Hungarian Academy of Sciences, at the Budapest Technical University, and during smaller excursions.

The entire material of the Congress, together with the contributions, will appear in the next collected "Papers" of the RSA.

BOOK REVIEWS

FRISS, I.: *Gazdasági törvények, tervezés, irányítás.* (Economic laws, planning and control.) Budapest. 1968. Kossuth Könyvkiadó pp. 272.

The reader is presented here a collection of studies selected from the crop of three years, prepared for various occasions and treating different subjects.* Still, the work will be found impressively coherent.

The author of these studies is not an economic *research worker* in the narrow sense of the word. He does not reveal facts which had been earlier unknown nor does he experiment with new methods. His aim is to *understand* and to *embrace* the new phenomena of the economy and of economic reasoning, to *systematize* and to *explain* them, to fit them into the framework of the *Marxian theory of socialism*, enriching thereby this theory. In this volume the experienced statesman and scientific organizer, the active participant of development and the propagandist inspiring action have also come to word but the leading voice is that of the *thinker* aiming at the transformation of practice, who labours at alloying theory with practical experience, in whose works an eager interest for new facts and ideas is coupled with creative reverence for classical heritage.

It is, among others, this *high ideological standard*, that lends a unity to this great diversity of ideas. There had been sufficient reason to rebel against dogmatism and scholastic word-twisting in earlier years but the dull empirism, practicism and empty formalism which fills now part of the liberated space is not much more edifying, either. Thorough-going theoretical reasoning, fitting of the topical problems of socialist economy into the broader perspectives of historical materialism have been pushed into the background and become less fashionable. Therefore, the volume is a rare and precious occurrence in Hungarian economic literature. It reminds the readers what they are apt to forget in everyday work, namely, that creation of an adequate system of planned economy, the disclosure of its laws and the elaboration of its methods of control are historical achievements to be measured by historical standards and requiring an historically proven ideology.

Another common feature of the studies in the volume is that, in the final analysis, all seek to answer the same great problem: What should be done in a historical situation where the socialization of production is not yet complete but the private ownership of the means of production has essentially been abolished, and when it can no longer be disputed that economic processes need planned central control but the possibilities of the latter are restricted.

* Some of these studies are accessible also in foreign languages: in Acta Oeconomica, Vol. 2, 1967, No. 1, pp. 2–23; Vol. 2, No. 4, pp. 271–289 (in Russian); Vol. 3, No. 4, pp. 357–380 and in the volume: "For the progress of Marxist economics". Budapest, 1967. Publishing House of the Hungarian Academy of Sciences. pp. 9–24. A full English edition is under preparation.

In other words: *what type of economy does the socialist economy represent and how should it be managed and controlled*, how should its laws be investigated and how should scientific knowledge be utilized in management?

This fundamental problem appears in various forms and is being investigated from several points of view, in each of the studies, even where it is not explicitly mentioned. The first section of the volume raises the problem from the point of view of present-day Hungarian economic practice, the second from that of political-economic theory, and the third one from that of economic research.

The *first section* centers on the preparation of the reform, on the widely debated relationship between plan and the market and on the improvement of national economic planning. The relationship between plan and political decisions, the contradictions between comprehensive concepts and the sectoral approach, the methods of planning, the main features of the new system of economic control and management are outlined. In the studies, the results of the passionate practical debates and the maturing effects of economic and methodological research carried out in recent years come to expression.

The *second section* treats the economic laws of socialism, the political economy of socialism. A historical summary is given of the development of the concepts of a socialist economy and of practical economic control and management, motivating thereby the necessity of the reform of economic control both from the theoretical and the empirical aspects. Unfortunately, the article analysing some problems of political economy leaves the question unanswered, *why is it* that the political economy of socialism does not provide more guidance for practical economic management? The reader will spontaneously add: as a matter of fact, practice can and does utilize already the results of economic research to no small extent — is it not that the discipline called political economy does not embrace these results because it interprets its own subject too narrowly?

The *third section* deals with the development of Hungarian political economy, its social role and future tasks. A survey of the past period discloses the factors affecting — promoting or hindering — development. Particular stress is laid here on the importance of creative cooperation between science and practice. The last study too, is written in this spirit, dealing as it does once more with the problems of planning, but now from the aspect of research. It provides the organization of science with a comprehensive and systematic concept of the needs of economy-wide planning, and of the topical research tasks.

As a matter of fact, the whole volume, and not only the third section, reflects and summarizes the development of Hungarian economic science in fifteen years. Conflicts of interest and contradictions in the process of national economic planning, shortcomings of the system of control and management, application of mathematics in economics and planning, contents and practical effects of the laws of political economy are problems which could hardly be mentioned fifteen years ago but which had become the subject of fierce debate five or ten years ago and by now offer already some lessons lending themselves to sober summarization. The reader becomes acquainted with these results and with the difficulties of the present period from the writings of an author who not only participated in the development of Hungarian economic science but defended it if need arose and who was one of the initiators and directors of its turning from scholastics to real facts.

The volume is complemented by a summary in English.

M. AUGUSTINOVICS

TIMÁR, M.: *Gazdasági fejlődés, irányítási módszerek Magyarországon.* (Economic development and control methods in Hungary.) Budapest. 1968. Közgazdasági és Jogi Könyvkiadó, pp. 233.

It is difficult to review Timár's book. First, in our rapidly expanding economic literature one can seldom find such a lucid, comprehensive work that would discuss almost all important questions of economic research on a high level.

Second, it is difficult to write a review of its contents. The conciseness of the work makes it almost impossible to summarize its contents without a danger of falsification. The author analyses the structural development of Hungary's national economy from the perspective of four decades. It is known what initial conditions were created for socialist construction by the two World Wars and in between by the 1929—33 great world economic crisis, or by the economic policy of the Horthy régime. After the success of the land reform, stabilization and reconstruction, efforts at a forced realization of wrong economic and political concepts again brought distortions in our economic and social life. During hardly more than a decade, since 1957, a more responsible political and economic management has led to a more successful economic progress and secured a steadier increase in the welfare of the population. Gradually, stimulated and directed by the Party, conditions have been established in this decade to initiate a comprehensive reform of economic management and to work out a long-term program of economic policy. The author deals with this process most realistically, and correctly emphasizes the decisive factors. Not only does he describe the results and the still existing contradictions of development but also qualifies and evaluates them.

Third, Timár hardly left any place for criticism. It is difficult not to agree with him. What is left for the author of this review is but to appraise the work. In view of the author's personality and his role in economic life, this is not always an easy task.

The basic viewpoint of the author, outlined in his foreword, but to be traced also through the whole work, is that the present system of socialist economy cannot be regarded as a fully shaped and mature system suited to utilize all the advantages inherent in the socially organized productive forces. In the final analysis, a critical evaluation of economic development and in some respects its failures, have warned us about the shortcomings of management methods and led to the necessary modification of economic management. The remarkable results, without precedents in the history of the Hungarian people, could not hide from the responsible leadership of the last decade those troubles which we could not cope with or that the results achieved were not always in proportion with the inputs and efforts. As a final result, the rate of economic growth in the last 17—20 years could not essentially improve the position of Hungary in the peaceful economic competition. Surveying our economic development and comparing it with the facts of international progress, the author is led by the conviction that there are such forces and possibilities inherent in our system as are capable of accelerating the rate of growth. The reform of economic management, and a scientific elaboration of our development programs and long-term plans are bound to release these forces. The author describes economic development in a critical way by presenting the events and phenomena, some sectors and fields of the economy not as single episodes, but always keeping in view development as a whole and providing viewpoints for the evaluation of this whole.

It is no less important than the previous point of view of the author that he analyses the management, the mechanism and the facts of economic progress and economic policy, on the one hand, and the economic and political sphere on the other, in close interaction. Analysis of the problems of management and mechanism cannot

be an end in itself; he considers them as a means to achieve more successfully and fruitfully the objectives of economic development. Or, with reference to the second relation: the effects of political troubles and problems as well as the realization of a correct political line cannot be underestimated in the process of economic life. The first lead to economic contradictions, to disproportions, the latter to economic achievements. Naturally, an inverse relation also exists; wrong economic decisions have harmful political consequences and our economic successes help a better solution of our political tasks.

This book was published in the spring of 1968. Simultaneously, however, we have switched over to the new economic management system. The author — who personally took part in the elaboration of the changes introduced — describes the broad spectrum and the meaning of the process which have *necessarily* led to the modifications. The modifications partly followed from an analysis of economic development — as was referred to previously — but many other theoretical precedents also existed. The author gives a comprehensive picture of the debates started several years ago and of the standpoints, which have — directly or indirectly — also helped to work out the principles of today's practice. After reviewing this process, the author summarizes the essence of the reform, introduced on January 1st 1968 and gives a clear answer to some problems still occupying public opinion.

At the time of writing or publishing the book the necessary experiences or historical perspectives for an evaluation of the reform were not yet available. Under these circumstances it is a special merit of the volume that it does not describe the management system introduced at the beginning of 1968 as a perfect one, without any troubles, faults or contradictions. It also reveals the difficulties causing problems today, in the period of transition. We still owe answers to many questions, he declares, we are searching for the right answers; some solutions were made under pressure and have a provisional feature, it is already clear today that they have to be changed. It is a commonplace that recognition of faults is a condition of their improvement. It should be only added that our failures and weaknesses must be recognized in time. Timár draws attention to some of the emerging contradictions and to the necessity of a rapid solution of the problems raised in life. This critical view of our work is necessary, only this kind of foresight can secure an earnest scientific and more successful leadership. It gives more credit to the solutions of today.

We are inclined to see several elements of the reform independently, or may be we mistake for "science" a description and explanation of its details. Timár tries to point out how the practical adaptation of some economic principle is connected with the general theories serving a more effective functioning of economy as a whole. One chapter of the book: "New Ways in Economic Management" is also characterized by this effort at a synthesis.

It is specially worthwhile to emphasize the relations raised in the last chapter (Problems of Economic Development). Emphasizing the necessity of elaborating scientific programs for economic progress, the author expresses his opinion on what he considers essential in developing the economy in the next years and decades. The scientific-technological revolution has been going on for years, and although in some countries or periods it comes to a temporary standstill, it influences more and more general economic progress. Our country has to keep up with that process. This is our national and proletarian-international task as well, is stressed by the author. The basic aim in our long-term development concept is to accelerate the rate of economic growth in such way that our inputs should be increasingly effective. Knowing the concrete relations in our economy, this contains, however, the requirement that today and also for a longer

period a decisive motive for our development concepts will be how the development influences the internal and external equilibrium of the economy, particularly the balance of payments in convertible foreign exchange. The author declares that the important and topical development concepts concerning the structural transformation of the economy are not sufficiently clarified in many relations. Discussions have been carried on for a long time about several basic issues of economic development. (Development rate of the sources of energy, ranking of investments in chemistry, engineering etc., order of magnitude of investments in agriculture, evaluation of the increase in purchasing power, etc.)

After formulating the general requirements, the author describes some development concepts concerning mainly the most important industrial problems. (Energy basis, aluminium industry, fertilizers, synthetic fibres, pharmaceutical industry, engineering, building material and light industry, construction, etc.) He gives a certain survey of the other sections of the economy, too. The author also emphasizes that, together with problems of development, we have to think also about deliberate reductions in several areas. The new system of economic management, new prices and subsidies make it more certain where are the strong and the weak points of our industry, our economy. The fields not to be developed, or where the present production level is to be reduced or the line of production changed should be carefully considered.

It would be difficult to judge whether the author is right or wrong in his analysis of the development concepts, as for instance in respect of the light industry or artificial fibre production. It may be possible that the way which is considered correct by the author today, will not be justified by later calculations. However, it is difficult to question them. Certainly, it is in this chapter of his book dealing with the tendencies of the future progress where he formulates the most remarkable ideas. All the issues suggested by the author in this book have to be discussed, controlled in every aspect, in order to choose the way of development scientifically and on the basis of calculations, not on that of impressions, however appealing and convincing they may seem. To avoid all kinds of misunderstanding, the author's arguments were convincing for me, and what is even more important, I believe, that the development program suggested by the author is very instructive. His work describes such lines for development which cannot be neglected in elaborating our long-term economic plans, they are waiting for an answer: justification or denial.

The number of works or studies dealing with the problems of economic policy are relatively few in our increasing economic literature. These kinds of publications are often declarative and have an explanatory feature at most. Timár's work proves that this practice should and has to be transcended and that it is possible to create something independent, original and individual even on the most comprehensive issues of economic policy.

I. HUSZÁR

For the Progress of Marxist Economics. Selected studies. Ed. by T. FÖLDI. Budapest, 1967. Akadémiai Kiadó. pp. 141. (Hungarian Academy of Sciences, Institute of Economics.)

The volume under review is a selection of studies published first in the 4th Yearbook on the occasion of the 10th anniversary of the foundation of the Institute of Economics, Hungarian Academy of Sciences. It contains six studies which evidently cannot reflect the present state of investigations carried out by the Institute and even less all the results achieved during the first decade of its existence. They serve more or less to give a spotlight on methods used and on results achieved in some fields of research work.

The deficiency that these papers as a whole do not give a broad information on the work of the Institute, is partly compensated by an introductory study by Academician I. FRISS "*Political economy of socialism in the making*". The author surveys the causes which, up to the mid-fifties, retarded the progress of economics and points out that the Institute of Economics, founded in 1954, broke with the dogmatic approach and put the examination of concrete economic facts into the centre of its activity with the aim of providing answers to important problems of building up socialism. Some major research results of the Institute are reviewed, and the fact pointed out that in the preceding period a theoretical generalization of concrete investigations had been impeded by dogmatic and revisionistic mistakes. It is stressed that a solution of the problems of socialist economy becomes possible only with the aid of science and that only science verified in practice can further advance. The role of deliberate and spontaneous elements in a socialist economy is also treated and the author states that although non-planned processes cannot be eliminated, they can be channelled in a favourable direction by means of economic measures. This makes it, however, indispensable that the plan should not be exclusively restricted to instructions but aimed at influencing the economy.

A second paper by R. HOCH and J. BERÉNYI entitled "*Planning the rate of growth in consumption*" tries to give an answer to the question: which type of consumption functions seems to be adequate to serve as a planning model with a view to the harmonious development of national economy and level of living trends.

Their main statements based on a detailed analysis are as follows: 1. A harmonious development of the national economy requires a relatively steady ratio of accumulation to consumption within the national expenditure. 2. A fluctuation in the rate of growth of consumption and accumulation leads to similar trends in the rate of growth of national income. 3. A fluctuation in the ratio of accumulation leads to a certain cyclicality in the socialist economy whose development would be otherwise even.

According to the authors' views the requirements of a harmonious development are mostly fulfilled by an exponential function with a constant growth rate.

J. LÁSZLÓ's paper "*Economic incentives and rentability in cooperative farms*" is a contribution to the debate in Hungary and other socialist countries on the economic incentive system. Namely, it is debated whether this system should be connected with the gross income of cooperatives, i.e. with the value added of a definite period or with the net income of the cooperative (gross income less the personal incomes of the producers).

The author backs the first view and shows that if a cooperative farm starts, while determining its production pattern, from the maximization of the cooperative's gross income, this ensures for each period a balance between works to be carried out and labour capacities. Thus, the cooperative can achieve an optimal utilization of resources per unit of area as well as per unit of work. This method assures an adequate rise in the personal incomes of cooperative members, which is a necessary precondition of the cooperative's development and simultaneously secures an improvement of the cooperative's financial position.

A paper "*On the interrelation between socialist international division of labour and the efficiency of production*" written by G. KOVÁSZNAI, F. KOZMA and their research group investigates with the aid of input-output tables the capital and labour intensities of production and the dynamics of intermediary and final products and their impact on the production pattern of CMEA countries.

They state that an evaluation of the given efficiency relations on national level suggests similar production patterns for

the different countries while the efficiency measured on international level tends to suggest a concentration of the most important branches of production to the developed countries of the CMEA area. A right way must be found amidst these two solutions. Furthermore, they state that the producers and exporters of the primary sector are handicapped by the prevailing production capacities and foreign trade prices. This disadvantage must be compensated to a justified extent by resources originating from the gains on exports of manufactured goods. Gains from the preference of the primary sector should be shared between the producer, i.e. exporter and utilizer, i.e. importer countries.

The study of P. ERDŐS "*A contribution to the interrelation between the theory of reproduction and that of business fluctuations*" is based on his extended investigations carried out during the last decade the results of which were published in a large volume "A contribution to the theory of money, economic fluctuations and cyclical crises".* The author discusses the problem to what extent can the realization or non-realization of the exchange equation in the Marxian two-sector model of expanded reproduction be considered as an indicator of the business cycle. The equation of exchange in question may be written in the form: $v_1 + f_1 + \Delta v_1 = c_2 + + \Delta c_2$, where v_1 is the variable capital, f_1 the consumption of the capitalists, Δv_1 the increment of the variable capital in Division I of reproduction, c_2 is the constant capital and Δc_2 the increment of the latter in Division II of reproduction. It is underlined there is a difference between the two kinds of the exchange equations, one based on factual data and another based on theoretical assumptions. He analyses the preconditions of equilibrium and states that in the theoretical exchange equation the two sides may be merely accidentally equal magnitudes. From a series of important statements derived from the analysis we quote the following two:

1. If the left side of the theoretical equation of exchange is greater than the right one, this is a sign of a business cycle more favourable than average, because in such a case the actual rate of the surplus value is — even with an average rate of accumulation — higher than average and this is an incentive to increasing accumulation.

2. If the right side of the theoretical equation of exchange is greater than the left side, this is a sign of a business cycle less favourable than average, because in this case the actual rate of the surplus value is lower than average and this will discourage accumulation activity.

On the basis of this analysis the author considers as proven that in a capitalist economy left to rely on its own automatism, investment activity — and with it the development of the business cycle — will essentially depend on the social product and its pattern.

F. MOLNÁR in his paper "*Reproduction process of the United States presented in Marxian schemes (1947—1963)*" utilizes a method elaborated in common with P. ERDŐS, and data derived from the official statistics of the United States. His model has three sectors; it comprises, in addition to the Divisions customary in Marxian schemes, i.e. those of the means of production and of commodities for consumption, a separate sector for ordnance. As regards the schemes of the individual Divisions, it publishes data not only for C, V and M, but within C it distinguishes the amortization of fixed capital and the raw and other materials used as well.

The schemes are elaborated for each year of the period both at current and at constant prices.

In order to analyse the reproduction and allocation process more thoroughly, the article establishes an accounting system with the following six accounts:

* Reviewed by A. Bródy in Acta Oeconomica Vol. 2, 1967. No. 1–2. pp. 139–142. Edition in English under preparation. *Editor's note.*

receipts and outlays of those living on wages and salaries and of those not living on wages; receipts and outlays of the State; production and utilization of the three kinds of goods (means of production, commodities for consumption and ordnance); foreign receipts and outlays abroad, and finally, the account of savings and investments. The accounts contain the data for ten selected years of the period.

The results of a detailed and complex analysis suggest a clear trend of the growing importance of the government sector in the US economy. This is reflected by the fact that due to incomes originating from the government sector the total of personal incomes from wages and salaries failed to decline even during recessions. An ever growing part of surplus value is concentrated in the government's hands. Government purchases represent a growing share of the global social product. The analysis concludes that significant changes have taken place in the structural and functional interdependence of the US economy.

The volume — as already mentioned — does not give an overall picture of the research activities of the Institute; nevertheless, it reveals an effort to explore relevant phenomena and relations of the economy and contains some results worthy enough of attention.

K. KÖVÉR

SZITA, J.: Magyarország gazdasági kapcsolatai a fejlődő országokban *(Hungary's economic relations with the developing countries)*. Budapest, 1968. Kossuth Könyvkiadó. pp. 210.

The past few years saw a considerable extension of the field covered by Hungarian literature on the subject of the economic problems of developing countries. Let us refer, first of all, to recent researches carried out by Professor *J. Bognár*, especially to his work claiming international attention on the problems of the control of economic growth,* as well as to the works published by *J. Nyerges*, *T. Szentes* and others aimed at clarifying the concept and forms of economic backwardness, the major relationships between the economic development of backward countries and certain domains of the international division of labour, and a number of other significant problems of theoretical and practical importance. J. Szita's recently published book, dealing with the economic relations between Hungary and the developing countries constitutes a welcome addition to this steadily growing literature.

The author examines the trend of economic relations from the point of view of Hungary's development and economic policies. His starting point is that Hungary's economic development requires to work out long-term economic policies and planning concepts, with special regard to the fields of economic relations where the foundations are less firm for lack of traditions, but that there is still a great number of factors here that seem rather uncertain and unsettled and liable to rapid changes as well.

The study treats of the development, progress and most characteristic features of the economic relations between Hungary and the developing countries against the background of the immense historical and world economic changes which took place in the past twenty years. It is actually since 1958 that these relations witnessed a significant development, with a growing number of developing countries becoming independent. The experiences gained in the past ten years provide, in the author's view, sufficient basis for an intensive analysis of these relations and for marking out the most expedient modes of their development.

The study deals with the subject from the Hungarian point of view, endeavouring at the same time to outline the most

* J. Bognár: Economic Policy and Planning in Developing Countries. Budapest. 1968. Publishing House of the Hungarian Academy of Sciences, pp. 648. Reviewed in "Acta Oeconomica", No. 3, 1968. *(Editor's note)*

important relationships in world politics and the world economy. The author surveys the major problems arising from the general position of developing countries, the difficulties of the established system of international division of labour, and raises the requirement that this system should be thoroughly transformed — primarily with the aim to solve the economic development problems of the developing countries. In the course of his investigations the author makes it clear that the economic relations with developing countries cannot be isolated from the internal progress of the socialist world system, nor from the relations between the socialist and capitalist world systems and the economic competition between them.

On the basis of the experiences of the past, it may be stated that the views of both scientific researchers and practical experts rather differ as to the various features of the relations with the developing countries and about the possibilities of fostering these relations. Szita's work may give new impulses to the debate on the question, and this is the more important as — and this point is stressed also by *Gy. Cukor* in a paper on the subject — no real exchange of opinions on Hungary's economic relations with the developing countries has as yet taken place.

With its novel and firmly founded views and its proposals concerning the extension of the practical work carried out up to now, the study seems suited to provide a basis for the concepts determining the long-term development of our relations with the developing countries. Further investigations and discussions on the following points are considered particularly necessary: the development trend of Hungarian imports from developing countries, a subject treated extensively in the study; the problem of increasing the imports of tropical products; the possibilities of importing crude oil and non-ferrous metals from developing countries; an increase of industrial imports from developing countries and the ways of establishing industrial (production) cooperation; a considerable increase of the export of machinery and complete plant equipment, which the author considers the basic condition of expanding exports to developing countries.

Beside the usefulness and importance of the work, its minor deficiencies are negligible; the study may be considered pioneering in the field, working up as it does a most difficult and intricate subject essentially without antecedents or sources.

Á. Orosz

CORRIGENDA

In No. 1968, on page 348 some data of the book by G. Kovács are not exact. The correct original title is as follows: Gazdaságpolitikai célok és a mechanizmus. The book was published by Közgazdasági és Jogi Könyvkiadó.

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Р. Ньерш

ПРИНЦИПИАЛНЫЕ И ПРАКТИЧЕСКИЕ ВОПРОСЫ СОЦИАЛИСТИЧЕСКОЙ ЭКОНОМИЧЕСКОЙ ИНТЕГРАЦИИ*

В чем сущность экономической интеграции? Каковы результаты и нерешенные проблемы экономического сотрудничества социалистических стран в рамках СЭВ? Можно ли ограничиться исправлением недостатков существующей системы сотрудничества или же надо заложить основы нового метода сотрудничества? Следует ли развивать интеграцию, соблюдая принцип национальный самостоятельности, или же неизбежно ее оттеснение на задний план? Развивать ли внешнюю торговлю на базе натурального товарообмена и твердых цен или же переходить к системе обратимой валюты и гибкого ценообразования? Каковы предложения руководства Венгерской социалистической рабочей партии о будущем социалистической интеграции? На эти и многие другие вопросы дает ответ в своей лекции автор — член Политбюро, секретарь ЦК ВСРП.

Тема моего доклада относится к кругу недавно возникших проблем. Двадцать лет тому назад, в начале социалистического строительства в нашей стране, когда и был создан Совет Экономической Взаимопомощи, еще не было надобности в международной экономической интеграции. Десять лет тому иазад национальные ресурсы представлялись и без интеграции достаточными для быстрого экономического роста. Сегодня же интеграция актуальна и рассматривается нами как один из основных вопросов будущего экономического развития. Когда планируется будущее и ищутся движущие силы развития, эта проблема попадает в центр нашего мышления.

Наверное, не излишне выяснить, в каком смысле возникает вопрос об экономической интеграции, наково содержание этого понятия. Определяя его, я не стремлюсь к научной пунктуальности, а, скорее, к краткому изложению сущности. Интеграция не тождественна простому усилению экономического сотрудничества, она в качественном отношении означает больше — это новый, своеобразный способ сотрудничества. Далее, весьма существенно, что интеграция — не новое явление в истории, так как в рамках национальных хозяйств уже начиная с XIX-го века протекал внутренний интеграционный процесс, развивался внутренный рынок и соответствующие ему экономические организации.

Внутренняя интеграция свободно продолжается и ныне. Наконец, я хотел бы подчеркнуть, что в наши дни эта проблема возникает иным образом

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и в новой форме: на повестку дня встает вопрос о международной экономической интеграции. Это — один из характерных симптомов настоящей исторической эпохи, предъявляемое ею требование развития.

Чем можно охарактеризовать сущность процесса международной экономической интеграции? Тем, что по мере интеграции процессы производства и обмена, имеющие сегодня национальные масштабы, взаимно сращиваются и в большей мере становятся международными. С одной стороны, определенная часть национальных производственных аппаратов вступает в постоянные связи с производственными аппаратами других стран, развиваются международное кооперирование и специализация; с дургой стороны, национальные рынки — в отношении все более растущей доли продукции — расширяются и превращаются в международные, интегрированные рынки. Эти два процесса развиваются одновременно. Интеграция открывает возможность рационального движения продукции, капитальных благ и рабочей силы между странами, что повышает эффективность национальных экономик. Ассоциирующиеся страны создают международный экономический механизм, служащий управлению этим процессом и контролю над ним. Развивается сеть совместных институтов интеграции. Таким образом, сотрудничество национальных экономик расширяется и развивается одновременно на различных уровнях хозяйствования. Так могу я охарактеризовать сущность интеграции.

Международная экономическая интеграция не должна рассматриваться как нечто специфическое для капиталистического или социалистического строя — она складывается в обоих общественных строях. Интеграция является характерным орудием малых и средних стран, которые только сплотившись могут отстоять свое место в сильной конкуренции на мировом рынке. В наши дни наиболее сильной капиталистической интеграцией является Европейское экономическое сообщество («Общий рынок»), участвующие в котором шесть стран заключили между собой таможенный союз, проводят совместную аграрную политику, разрабатывают общую торговую политику и создают также и наднациональные органы по регулированию общего, интегрированного рынка. Менее тесным объединением является Европейская ассоциация свободной торговли, в которой семь стран во главе с Англией ликвидировали таможенные ограничения по отношению друг к другу и взаимно согласуют свою торговлю. Слабость этого сообщества заключается в том, что входящие в него страны недостаточно заинтересованы во взаимной торговле. Если осуществится интеграция стран СЭВ, то этот факт явится одним из проявлений острого экономического соревнования между двумя общественными системами.

В чем будет состоять аналогичность и каковы будут принципальные различия между интеграциями капиталистических и социалистических стран? Аналогичным будет то, что в обоих случаях мерило экономической эффективности, рентабельности попадает под контроль международного рынка; технический прогресс будет происходить в международной атмосфере. Но в силу

различия общественных строев между ними будет решающее различие. Капиталистические интеграции строятся на интересах и системе интересов монополистического капитала, социалистическая интеграция же основывается на общих интересах национальных экономик, на общих интересах рабочего класса входящих в сообщество стран. Внутри капиталистических интеграций ведется ожесточенная борьба между различными группами капиталистов и монополями, в которой государственные интересы и интересы трудящихся классов оттесняются на задний план; социалистическая интеграция же создает регулируемый рынок, формирующий международное соревнование между предприятиями в соответствии с общими интересами. Для капиталистической интеграции характерна невидимая интеграция, то есть превращение крупнокапиталистических обществ в международные, перераспределяющие национальные доходы стран в соответсвии с интересами капитала. Общеизвестно, например, что рост вывоза американского капитала в Европу приводит к утечке солидной части европейских прибылей за океан. Вот характерный пример: в 1968 году, когда вывоз капитала из США в другие страны составлял 2,8 миллиарда долларов, из прибылей размещенных ранее капиталов было репатриировано в США 5,8 миллиарда долларов. И в сообществе социалистических стран будут создаваться совместные международные предприятия, но в нем не будет ни невидимой интеграции такого рода, ни капиталистической системы перераспределения национальных доходов. Вот основные различия между капиталистическим и социалистическим образом интеграции.

Какова разница между нынешними методами проводимого в рамках СЭВ сотрудничества и интеграцией? Прежде всего я хотел бы подчеркнуть что интеграция не противоречит нынешним методам сотрудничества, а следует из них, является их дальнейшим развитием. Мы не должны осуждать нынешнее сотрудничество. Вступая в интеграцию, можно неизменно сохранить в отношении основных принципов преемственность между прошлым, настоящим и будущим. В то же время интеграция — это не только продолжение настоящей системы, но и ее преодоление; это — новый метод на новом этапе развития.

Как можно охарактеризовать нынешний порядок сотрудничества? В нынешнем порядке сотрудничества взаимоотношения между национальными экономиками развиваются путем государственной координации, в то время как кооперирование между предприятиями различных стран осуществляется в узком кругу. Хотя уже и существуют определенные элементы интеграции, экономического сообщества, как, например, общий банк, общий вагонный парк, специализация производства и т. д., они, с одной стороны, незначительны, а с другой стороны, им недостает климата международной интеграции. Идеалом нынешней системы является хорошо скоординированное сотрудничество национальных экономик посредством производимой на высшем

уровне государственной координации товарных поставок в натуре. А что характерно для экономической интеграции? Посредством интеграции национальных экономик создается региональное экономическое сообщество наций, в котором существуют и действуют общие экономические движущие силы, в котором в широком плане развертываются кооперирование производства и специализация предприятий, и благодаря механизму интегации растет концентрация производства в определенных отраслях хозяйства, основывающаяся на спросе, превышающем масштабы национального рынка. Основным принципом применявшегося до сих пор метода была государственная координация, нового же метода — сочетание государственной координации со стимулирующей ролью интеграции. Это — отличие по существу двух методов и двух принципов, и это — уже различие не в степени, а в качестве сотрудничества. Между двумя системами есть невидимый рубеж, через который надо перешагнуть, если мы хотим двигаться от одной системы к другой. Этот рубеж невозможно перешагнуть незаметно или хотя бы без определенных забот и затруднений.

Общеизвестно, что руководство нашей партии считает необходимым развивать экономическое сотрудничество между странами-членами СЭВ. Мы разработали наши предварительные соображения, одновременно внимательно изучив мнения других братских партий. Я хотел бы подчеркнуть проявленную Польской объединенной рабочей партией инициативу и ее ценные предложения, которые побудительно подействовали и на остальные партии. Мы готовы своим участием в общем труде помочь выработке окончательной программы развития нашего сотрудничества. В центр наших предварительных соображений мы ставим идею социалистической интеграции, считая что она осуществима при одновременном соблюдении принципов коммунистического интернационализма и наших национальных интересов. Однако требуется еще много коллективных усилий для выяснения того, чего же мы хотим в действительности, почему мы хотим именно того, а не другого, и каким образом мы хотим все это осуществить. Только после этого сможем мы представить наши предложения руководящим партийным и государственным органам для принятия по ним решения.

Поскольку в наших соображениях поднимается вопрос о существенном развитии, можно сказать, реформе СЭВ, справедлив вопрос о том, какую роль сыграл СЭВ в экономической истории последних двух десятилетий.

Общеизвестно, что Совет Экономической Взаимопомощи был создан в январе 1949 года с участием шести стран (Болгарии, Венгрии, Польши, Румынии, СССР и Чехословакии); затем месяц спустя к нему примкнула Албания, в 1950 году присоединилась Германская Демократическая Республика, а в 1962 году — Монголия. Позднее Албания фактически вышла из сообщества, Югославия же установила специфическую форму сотрудничества с Советом. Таким образом, практически в СЭВ входят восемь стран-членов, а

одна страна принимает частично участие в совместной работе. Прошедшие два десятилетия свидетельствуют о том, что созданные в 1949 году экономические узы оказались прочными, потому что они приносят странам-участницам выгоду по существу.

Целью стран СЭВ является стимулирование посредством экономического сотрудничества быстрого экономического развития, обеспечение планомерности экономических связей и устранение возможных неурядиц в этой области, оказание друг другу защиты от нажима капиталистических стран, помощь более быстрому развитию менее развитых стран-членов. *Если задать себе вопрос, отвечал ли СЭВ этим первоначальным представлениям, то мы можем ответить на него утвердительно. Справедливость нашего ответа подтверждается следующими фактами:*

— Под экономические связи между странами удалось подвести планомерные основы и предотвратить стихийное развитие народных хозяйств. Было осуществлено согласование среднесрочных пятилетних народнохозяйственных планов и началась координация преспективных планов. Внешнеторговый товарооборот развивается согласно долгосрочным соглашениям и в большой мере обеспечивает странам надежные внешние рынки.

— Наши страны со времени начала сотрудничества достигли быстрых темпов роста. Проиллюстрируем это на примере наиболее всеохватывающего показателя — темпов роста национального дохода. В 1950—1967 гг. в странах-членах СЭВ среднегодовой прирост национального дохода в расчете на душу населения составлял 6,8%, в то время как этот показатель в среднем по развитым капиталистическим странам составлял 4%, а по странам «Общего рынка» — 4,5%. Быстрый экономический рост благоприятно сказался на жизненных условиях масс, на общем развитии общества. В результате этого в среде трудящихся, да и, вообще, в общественной жизни сложились условия, образ жизни и психология, характерные для развивающегося, поднимающегося общества.

— Благодаря своему сплочению ассоциированные социалистические страны обеспечили себе должную экономическую защиту от капиталистических стран в период холодной войны, когда против них широко применялось оружие экономической дискриминации. В новых социалистических государствах не произошло экономического спада вопреки тому, что двадцать лет тому назад прервались или значительно сузились их исторически сложившиеся многообразные экономические связи с капиталистическим миром. Благодаря СЭВ социалистические страны смогли не только найти замену прекратившейся внешней торговле с капиталистическими странами, но и обеспечить быстрое взаимное расширение рынков сырья и готовой продукции. За это время страны-члены СЭВ настолько тесно сплотились друг с другом во внешнеторговом отношении, что их взаимный оборот составляет в настоящий момент 60% общего объема внешнеторгового оборота. В то же время, напри-

мер, внешнеторговый оборот между странами «Общего рынка» составляет лишь 40% их общего внешнеторгового оборота. Сотрудничество, таким образом, являлось значительным ресурсом экономического развития ассоциированных стран.

— Объединение сил оказалось полезным и с точки зрения выравнивания уровней развития стран-участниц, так как оно позволило и поощряло более быстрое развитие менее развитых стран. Правда, это сближение происходит весьма медленно и не во всех отношениях правильно, но тенденция к сближению в общем наблюдалась. Быстрее развивалась экономика Болгарии и Румынии, не достигавших по общему экономическому развитию среднего уровня. За семнадцать лет в среднем по всем странам среднегодовой прирост национального дохода в расчете на душу населения составлял 6,8%, а в этих странах — 8,7%. Сильное сближение наблюдается и в отношении степени индустриализации, но не удовлетворительна еще степень сближения технических уровней. Тенденция развития, однако, благоприятна и отвечает первоначальным намерениям.

Сказанным выше мне хотелось бы доказать, что в отношении основных задач наше сотрудничество дало нам хорошие результаты, но оно не было во всех отношениях совершенным и эффективным. Нам не удалось устранить ряд трудностей и недостатков, и есть вопросы, решение которых находится на мертвой точке, причем участники попадают в положение шахматистов, делающих «пат». В последнее время некоторые трудности, вместо того, чтобы уменьшаться, понемногу разрастаются, снижая эффективность общих действий. Это обстоятельсво предупреждает нас о необходимости во-время продумать наше положение, не дожидаясь того, когда эти трудности станут серьезными. Нам представляется, созрело положение для того, чтобы, пользуясь терминологией «политическое планирование», заново обосновать будущее сотрудничества между странами-членами СЭВ.

Для решения каких главных проблем необходимо совершенствовать наше экономическое сотрудничество?

Из числа задач, касающихся стран-членов СЭВ, я хотел бы выделить три задачи, являющиеся узловыми и содержащие сущность всего комплекса проблем. Я имею в виду следующие задачи: 1. Необходимо раскрыть новые источники экономического роста и устранить диспропорции, тормозящие динамическое развитие. 2. В определенных хозяйственных отраслях следует открыть дорогу международной концентрации и более значительной специализации производительных сил. 3. Необходимо увеличить конкурентоспособность стран-членов СЭВ на мировом капиталистическом рынке, построить общую и эффективную экономическую систему защиты от вредных влияний мирового рынка. Для решения этих задач нам надо встроить в систему сотрудничества новые мощные двигатели. Пользуясь сравнением из области тех-

ники: производя капитальный ремонт мотора СЭВ, мы сможем двигаться вперед с желаемой скоростью и надежностью.

Почему нам требуются новые источники экономического роста? Потому что имевшиеся до сих пор в наших странах источники начинают иссякать. Экономическое развитие большинства социалистических стран за два минувших десятилетия характеризовалось экстенсивной индустриализацией. На этом этапе основным источником экономического роста было широкое вовлечение в производство новой рабочей силы и быстрый количественный рост машинного оборудования. Этот процесс сопровождался большим переливом рабочей силы из сельского хозяйства в промышленность. Суть экстенсивной индустриализации заключается в создании ею быстро расширяющегося внутреннего рынка, позволяющего реализовать быстрый экономический рост. Однако на внутреннем рынке спрос часто растет быстрее предложения и, таким образом, возникает товарный дефицит, что в свою очередь приводит к растущим трудностям.

— Экстенсивное развитие — пока его можно продолжать — весьма выгодно для данной страны. Оно ликвидирует открытую и скрытую безработицу, быстро увеличивает удельный вес промышленности в экономике, фундаментально решает вопрос социального обеспечения, общественного страхования трудящихся масс. Однако экстенсивное развитие имеет и свою опасную сторону: количественный рост продукции может приобрести чрезмерное значене, и требование экономической эффективности получает лишь второстепенную, чрезвычайно подчиненную роль. Из этого затем могут последовать длительные затруднения. В последнее время они наблюдались в нашей стране и, насколько мне известно, в некоторых других социалистических странах.

Ныне в ряде социалистических стран уже пройден или близится к концу этап экстенсивной индустриализации. Против экстенсивного развития действуют два фактора. Резервы рабочей силы иссякли (уже нет резервов в требуемом для комплексного роста производства и услуг составе); на внешних рынках все чаще можно реализовывать лишь дешевые и высококачественные изделия, отвечающие современным требованиям. Любой из этих двух факторов сам по себе может причинить достаточно проблем, а действуя совместно, они тем более предупреждают нас о том, что мы должны изменить «курс», последовать путем интенсивной индустриализации. Упомянутые выше два фактора начали сказываться в европейских социалистических странах уже в начале 1960-ых годов. Начиная с этого времени и в статистике можно проследить замедление тренда экономического роста стран-членов СЭВ. Ведь если в 1950—1958 гг. ежегодный прирост национального дохода составлял 8,4%, то в 1959—1967 гг. он составил всего 5,3%. В этом, естественно, определенную роль сыграли и другие факторы, но мы не будем далеки от истины, сделав вывод, что в сокращении темпов роста решающая роль принадлежала иссяканию источников экстенсивного роста.

На стадии интенсивного роста основными его источниками являются повышение производительности труда, эффективность капитальных вложений, международная специализация и расширение внешених рынков.

Справедлив, однако, вопрос: иссякают ли возможности экстенсивной индустриализации во всех странах-членах СЭВ? На этот вопрос можно ответить отрицательно. Бесспорно, что Германская Демократическая Республика и Чехословакия уже прошли стап экстенсивного развития. Сильно иссякают экстенсивные резервы и в нашей стране. Не таким однозначным является положение в СССР и Польше. Несомненно имеются еще экстенсивные источники в Болгарии и Румынии. Было бы явно неправильным и даже абсурдным предлагать прекратить экстенсивную индустриализацию там, где она еще располагает резервами. Но в то же время верно и то, что если значительная часть стран вступит на путь интенсивного промышленного развития, то и остальные страны не смогут продолжать экстенсивного развития прежним образом, то есть учитывать аспекты экономической эффективности и требования международного рынка лишь в такой мере, как это делалось до сих пор нами всеми. Развивающиеся интенсивно страны могут быть рынками сбыта для продукции промышленно менее развитых стран только в том случае, если последние будут увеличивать производство и экспорт товаров, конкурентоспособных как технически, так и с точки зрения цен. Этому должны помочь и развитые страны. Я полагаю, что в будущем экстенсивное промышленное развитие в менее развитых странах должно продолжаться таким образом, чтобы при этом усиленно учитывалось требование должного технического уровня и повышения производительности труда.

Почему в странах-членах СЭВ следует открыть более широкую, чем до сих пор, дорогу концентрации производительных сил? Потому что сложившееся ныне положение не способствует должным образом революционному прогрессу техники. Наблюдаются обособленность в области научных исследований, медлительность в области производственного кооперирования и отсутствие гибкости во внешней торговле.

Научно-технические исследования проявляют свой эффект почти полностью в национальных рамках, а ведь научное кооперирование, разделение исследовательских задач, свободный поток результатов исследования — это, действительно, основные требования нашей эпохи.

Основное условие более быстрого развития — сделать заинтересованными в этом как ученых, так и институты, предприятия. Характерно, что венгерская машиностроительная промышленность с 1947 года по 1967 год — то есть за двадцать лет — купила за границей всего лишь 63 значительных патента, причем большинство их — после 1962 года. Такая научная изоляция вредна для экономического развития.

Между нашими странами в определенной мере сложилось и развивается производственное кооперирование, осуществляемое, однако, до сих пор лишь

в узком кругу. И без того трудный процесс значительно задерживается тем, что на межгосударственном уровне учитываются лишь отвлеченные технические аспекты и игнорируется экономическая, торговая заинтересованность предприятий.

Применяющиеся методы внешней торговли также препятствуют развитию международного кооперирования и специализации. Система двусторонней товарной компенсации благоприятствует лишь двусторонней специализации, в то время как требуется многосторонняя; «зарегулированная» торговля открывает небольшие возможности для поставок товаров, которые невозможно заранее точно запланировать, но которые очень сильно и срочно нужны заказывающей их стране. Также потребности возникают и в социалистическом плановом хозяйстве, и, если их невозможно быстро удовлетворить, то это противодействует развитию кооперирования.

Все это свидетельствует о том, что плоскости соприкосновения национальных экономик весьма ограничены, и на методах сотрудничества сказывается административная окостенелость. Такое положение во многом препятствует тому, чтобы развитие производительных сил перешагнуло через нынешние национальные границы.

Бесспорно, внутренние рынки стран-членов СЭВ — за исключением Советского Союза — в отдельности слишком малы, что задерживает развитие отраслей, имеющих наиболее динамичные возможности. Если же эти отрасли развивать усиленно, то производственные структуры стран будут проявлять тенденцию к параллелизму, как это уже ясно наблюдалось за последнее десятилетие. Причина этих проблем коренится не в националистических воззрениях, а в тормозящем действии хозяйственного механизма. Возникновение параллелизма можно приписать в счет недостаточной координации народнохозяйственных планов и несогласованности концепции развития. Эти недостатки существуют, и их следует исправить. Но за ними надо видеть корень проблемы: ограничивающее влияние узости национального рынка, разделение экономического расчета на народнохозяйственную калькуляцию и калькуляцию предприятий, серьезные экономические затруднения при выяснении подлинных национальных интересов. В этих вопросах сегодня нередко запутываются и плановики, не способные преодолеть трудности. Одной из основных причин трудностей, таким образом, является чрезвычайная замкнутость национальных рынков по отношению друг к другу, которую хорошо было бы ликвидировать.

Многоотраслевая, среднеразвития экономика в современных технических условиях, — согласно оценкам экономистов — может в перспективе динамично развиваться в случае, если она располагает рынком минимально в 110—120 миллионов потребителей. Оптимальная величина рынка — приблизительно 250 миллионов потребителей. Таким образом, страна или должна располагать внутренним рынком такой величины, или же должна быть обе-

спечена таким внешним рынком, где производительные силы могут развиваться так же свободно, как и внутри страны, и большая часть продукции может свободно выходить за пределы страны. Страны-члены СЭВ в настоящий момент представляют такой обеспеченный рынок друг для друга лишь в отношении весьма малой доли своей продукции. Поэтому является насущным вопрос создания и постепенного расширения объединенного, интегрированного рынка наших стран. Такой объединенный рынок представлял бы хозяйственное пространство оптимального размера, располагающее более чем 300 миллионами потребителей.

Интеграционного объединения европейских социалистических стран настоятельно требуют практические проблемы, которые может решить только интеграция. Я имею в виду следующее:

— Нельзя мириться со значительным параллелизмом, сложившимся в обрабатывающей промышленности, в особенности в машиностроении стран-членов СЭВ, а при настоящем механизме международное кооперирование и специализация продвигаются очень медленно. Здесь нехватает системы экономической заинтересованности, которая побуждала бы как государственные органы, так и предприятия вскрывать и использовать имеющиеся возможности. Из-за этого специализацией в странах-членах СЭВ охватывается всего лишь 6—7% продукции машиностроения, в то время как в странах «Общего рынка» в наиболее отсталых областях — 15%, а по ряду товарных групп — даже 70%.

Очень малы в наших странах взаимные поставки предметов потребления, внешнеторговые ограничения в этой области чрезмерны. Поэтому и в производстве предметов потребления наблюдается параллелизм, превышающий разумые размеры, и в то же тремя ассортимент товаров социалистической торговли во всех странах уже потребностей потребителей, что можно было бы решить путем более широкого бомена предметами потребления. Импортные товары в розничной торговле стран-членов СЭВ составляют около 10—12%, а в Западной Европе — более чем в два раза больше.

Производство и взамные поставки сырья и материалов хронически отстают от развития обрабывающей промышленности; все труднее удовлетворить растущие сырьевые потребности. В этой области еще не создана система реализации общих экономических интересов. Характерно, что страны-члены СЭВ — не считая Советского Союза — приобретали из капиталистических и развивающихся стран в 1960 году 24%, а в 1966 году — уже 35% импорного промышленного и сельскохозяйственного сырья.

Более быстрое развитие внешней торговли задерживается системой, основывающейся на взаимном двустороннем балансировании товарооборота. Многосторонние расчеты еще не получили по-настоящему права на существование в хозяйственных отношениях наших стран. Дополнительную трудность причиняет стремление к реализации принципа компенсации в еще более

узком плане, согласно которому страны должны обменивать «сырье на сырье», «машины на машины», причем всегда в одинаковом соотношении. Эта тенденция — «могильщик» специализации. Она появилась потому, что нет «твердой» обратимой валюты СЭВ, потому что нет реальных валютных курсов, и из-за этого трудно установить международную эффективность продуктов.

В большинстве наших стран большие заботы причиняет несбалансированность торговли с капиталистическими и развивающимися странами, отсутствие в ней элементов устойчивости. В странах с большим удельным весом внешней торговли это представляет собой такой фактор неопределенности в среднесрочном и долгосрочном планировании, который уже вреден. Далее плохо, что наши страны не используют в достаточной мере — или едва используют — возможностей совместного осуществления экономических действий на мировом рынке, выгодных для всех нас.

Эти проблемы могут быть решены посредством развития взаимных связей между странами-членами СЭВ.

Нерешенным является и вопрос о том, каким образом должны мы учитывать в планировании и торговле в будущем капиталистические и развивающиеся страны. Следует ли нам стремиться к развитию торговли с ними, или же эта область должна остаться зоной планирования, представлющей поле действия случайностей? Мы еще помним, как начало строиться социалистическое народное хозяйство в нашей стране. Тогда еще сотрудничество между странами-членами СЭВ мы понимали таким образом, что оно должно полностью охватить внешнюю торговлю наших стран, а торговля с несоциалистическим миром является своего рода временным остатком прошлого, с которым можно справиться, заключая и осуществляя случайные сделки по поставке товаров. Эту концепцию опровергла сама жизнь. В то же время концепция планомерного развития по сей день не претворяется в жизнь с должной целеустремленностью и последовательностью, что в конечном счете ведет к ослаблению позиций наших стран на мировом рынке. Сальдо платежного баланса в отношениях с капиталистическими странами в некоторых социалистических странах — в частности и у нас — вызывает сиситематически повторяющиеся напряженные моменты в повседневной жизни, а это задерживает развитие. Эти напряженные моменты устранить нельзя внезапным изменением повседневной хозяйственной деятельности, посредством какой-либо широкой кампании по экономии импорта. Наши действия на мировом капиталистическом рынке должны стать более эффективными, рентабельными — этой проблеме мы должны смотреть в лицо в рамках СЭВ.

Принципиальные и политические вопросы обновления экономического сотрудничества

Таково положение, мотивирующее новую постановку проблемы экономического сотрудничества стран-членов СЭВ. Было бы очень большой ошибкой пессимистически считать, что старые методы должны быть заменены новыми потому, что они плохи и всегда были плохими. Это неправда. Но мы не должны рассуждать на манер консервативных людей, полагая, что все, что было долгое время хорошим для нас, будет хорошим и впредь. В своей деятельности мы должны быть дальновидными. Социализм в наши дни — в международном плане и в национальных масштабах — экономически завершает определенный этап развития, сложилось новое положение, и поэтому нельзя продолжать применять прежнюю систему сотрудничества. Новый этап развития следует подготовить принципиально, при помощи различных институтов и на основании новых соображений по ряду вопросов.

Обновление экономического сотрудничества имеет громадное политическое значение. Оно повлияет на общественные отношения наших стран в широком смысле этого слова и на мировую экономику. В этом вопросе как и в вопросах подобного значения, вообще, экономические и политические проблемы переплетаются друг с другом. Сейчас эту проблему породило экономическое развитие, и от политической сферы, зависит, как будет она решена. Экзаменом — причем в международном плане — нашего политического мышления и деятельности явится эффект нашего воздействия на экономические отношения.

Политика всегда непосредственно влияла на экономику в макроэкономической сфере, для области же микроэкономики более характерно ее косвенное влияние. На хозяйствах различного типа стран с различным общественным строем отражается, как формирует политика в макроэкономическом плане адекватную себе экономическую структуру. Наглядно и то, как в развивающихся странах политика отстаивания независимости сталкивается с неоколониалистскими экономическими стремлениями, как борются друг с другом эти две тенденции. Для того, чтобы политика реализовалась, господствующие в экономической жизни тенденции должны соответсвовать политическому курсу. Сегодня в различных капиталистических странах наблюдается явная и тесная взаимосвязь между тем или иным политическим курсом и его экономической политикой. Наиболее яркий пример этого — голлистская политика Франции, старающаяся с большой силой и последовательно реализовать свои политические приципы в хозяйственной жизни, и которой это, хотя и с определенными затруднениями, до сих пор удавалось. В качестве противоположного примера можно привести английское лейбористское правительство Вильсона, которому вот уже сколько времени не удается достичь экономической практики, отвечающей его политическим стремле-

ниям, что ослабляет его политические позиции. В мире нет, таким образом, политического режима, незаинтересованного в экономических вопросах, нет экономики, независимой от политики. Наряду со всем этим мы прекрасно знаем, что в конечном счете и в конечных вопросах экономика является базисом, а политика — надстройкой, зависящей от него. Эта наша философская позиция не лишает нас возможности познания того, что в практической жизни, в истории будничных дней политика и политические курсы оказывают исключительно сильное обратное воздействие на экономику.

При социалистическом строе связь политики и экономики, их взаимозависимость выражается гораздо более открыто, чем при капиталистическом строе, и можно избежать тактического маневрирования политической практики между различными интересами, что неизбежно в демократических капиталистических старнах из-за антагонизма интересов. Однако и при социализме существует возможность изменения политических курсов, с примерами этого не раз можно было встретиться в течение последних двух десятилетий. Изменение политического курса влечет за собой изменение экономического курса, новое соответствие политических и экономических тенденций. Вспомним в качестве положительного примера XX-ый съезд КПСС, определивший в виде программы, имеющей силу по сей день, политический курс коммунистического движения, провозгласив принципы, с которыми солидаризировались и которым последовали социалистические страны. Это привело к очень существенным изменениям и в экономической политике. Мы, например, до 1956 года в политике и в экономике следовали принципам, распространенным до XX-го съезда. Великий урок возникновения и подавления контрреволюции заключался в том, что надо следовать идеям, наиболее ясно сформулированным до сих пор XX-ым съездом. Это убеждение легло в основу политики ВСРП. С этим надо было согласовать и экономическую политику, что означало фундаментальное изменение прежней экономической политики. Сделав это, начиная с 1957 года, мы смогли последовательно осуществлять свою политику в целом. Таким обарзом, правильная политика всегда благоприятно влияет на экономику. Из истории социалистических стран можно привести и пример отрицательных изменений. Таковым является изменение политического курса, происшедшее в Китайской Народной Республике в начале 1960-ых годов с введением перманентной революции и объявлением политики «большого скачка». Вследствие этого фундаментально изменились экономические принципы и экономическая практика. Это политическое изменение в Китае привело к хозяйственным авантюрам, в результате которых произошел спад экономического развития.

Из этого опыта я хотел бы сделать вывод, что достижение соответствия экономической и генеральной политики и при социалистических отношениях является нашей задачей, ибо никакой автоматизм ее не обеспечивает. Работая сейчас над нашим перспективным планом, мы должны искать и найти

возможность такого развития международных экономических связей, которое не только учитывает политическую обстановку сегодняшнего дня, но которое приспособливается и к будущему политическому развитию социалистических стран и, даже шире, — всего социалистического мира и овечает его требованиям.

Несомненно, что и в отношении данной темы не может быть какого-либо предрешения, какого-го веления истории для нас, которое мы должны лишь исполнить, не утруждая себя выбором между различными возможностями. История, действительно, имеет веление для нас, но оно, — именно потому, что оно имеет силу для длительного исторического периода — очень обще. Оно гласит примерно так: «Социализм должен одержать победу над капитализмом в мирном соревновании!» «Социалистическое хозяйство надо поднять на уровень высшей техники, наилучшей организации труда, наиболее полной демократии!» «При социализме границы национальных хозяйств не должны быть границами развития науки и производительных сил!» Вот суть этого веления. Может быть, мои формулировки не совсем точны, но в моем положении большой беды от этого не будет, ведь я только цитирую, а не издаю эти повеления. Не могу я утверждать и того, чтобы в силу положения докладчика или другой своей функции я был бы на более короткой ноге с историей, чем присутствующие здесь товарищи. Веления истории никому не доставляются на дом, мы сами должны познать их — не только из книг, но и путем сопоставления науки и практики. Таким образом, есть веление, которое мы можем исполнить, только выбрав наилучшую из конкретных возможностей.

Но в чем же состоят в данном случае свобода и обязательность нашего выбора? Во-первых, мы должны правильно определить генеральное направление развития последующего периода. Я думаю, правильное направление можно найти, преследуя две цели: служить делу развития международного социализма и следовать специфическим интересам наших народов. Далее необходимо выяснить, что из числа некоторых важных вопросов, представляющих собой альтернативные возможности, какая из альтернатив является лучшей, какую следует избрать. Если затем удастся достичь согласия в международном плане, то надо будет действовать, придерживаясь избранного направления.

На основании — далеко не полного — изучения общественной жизни, литературы, экономики затрагиваемых социалистических стран я полагаю, что установление программы дальнейшего развития СЭВ требует уже сейчас ясного ответа на некоторые вопросы принципально-политического характера, чтобы их невыясненность не приводила в дальнейшем к затруднениям.

Первый вопрос: *следует ли подправлять существующий порядок сотрудничества, или же надо заложить основы нового способа сопрудничества?*

Может быть, есть для кого поставленный таким образом вопрос уже кажется устаревшим, ибо они уже решили его для себя, считая неизбежным заложение новых основ. Однако этот вопрос все еще существует в международном плане и вызывает дискуссии. Внутреннюю логику имеют сами по себе и соображения о том, что раз применявшаяся до сих пор система сотрудничества была успешной, нет особых причин для ее фундаментального изменения. Сохраним нынешний порядок сотрудничества, освободив его от дефектных деталей или от неправильной практики! — говорят представители этого направления.

Руководство же нашей партии придерживается того менения, что следует найти новое принципиальное решение сотрудничества. По нашему мнению, нельзя решать этот вопрос, исходя из того, была ли полезной или нет проводившаяся до сих пор деятельность СЭВ. Мы придерживемся того мнения, — как я уже говорил об этом ранее — что СЭВ безусловно был и остается полезным. И все же мы считаем необходимым его фундаментальное обновление. Мы признаем, что сотрудничество можно улучшить и при настоящих основах, но видим и то, что главные недостатки наших дней — дефицит сырья, производственный параллелизм, дефицитный рынок потребления — неотделимы от нынешнего механизма СЭВ, как тень от солнечного света. Эти недостатки пока еще не причиняли невыносимых затруднений, однако в будущем они могут оказать гораздо более неприятное воздействие.

Было бы неправильным колебаться из-за нехватки сырья и товаров, бояться интеграции, более свободной торговли и экономической заинтересованности. Ведь если кто-нибудь полагает, что настоящий механизм необходим из-за товарного дефицита, то он смешивает причину со следствием. В мирное время порядок фондирования средств и административные методы хозяйствования существуют не из-за дефицита товаров, а как раз наоборот, сам этот дефицит воспроизводится механизмом фондирования. Тот, кто считает, что все определяется дефицитом, никогда не сможет освободиться от него, потому что всегда будет действовать по логике дефицитного хозяйствования и этим порождать дефицит вновь. Мы должны освободиться от товарного дефицита и уже поэтому должны встать на сторону новых методов.

Поэтому мы за интеграцию и за ее систему заинтересованности.

Другой вопрос: *следует ли развивать интеграцию, соблюдая принцип национальной самостоятельности, или же неизбежно оттеснение национальной самостоятельности на задний план?*

При выборе должного решения было бы неправильно какое бы то ни было уменьшение национальной самостоятельности — подразумевая всегда взаимность — считать какой-то «букой», о которой даже думать нельзя. Народы живут не в безвоздушном пространстве, не в состоянии абсолютной изоляции и независимости, а наоборот, по мере экономического прогресса наблюдается усиление взаимной зависимости национальных экономик. Было

бы бесполезно защищать бастионы национальной самостоятельности от рационального усиления взаимной зависимости, ибо поступая так, мы попытались бы противостоять объективному историческому процессу. Взаимная зависимость на рациональных основах возможна при сохранении сути национальной самостоятельности.

Нельзя, однако, мыслить и таким образом, будто проблемы национальной самостоятельности, вообще, не существует. Если, например, мы поставили бы задачей осуществление в рамках СЭВ совместного планирования и подчинения ему национального народнохозяйственного планирования, — как это явствовало из написанной шесть лет тому назад товарищем Хрущевым статьи, — то мы в действительности значительно ограничили бы национальный суверенитет стран. Делать это во всяком случае было бы неправильно. В современном историческом периоде основная форма существования производительных сил и производственных отношений социализма — это национальное хозяйство, и было бы грубой ошибкой упускать это из виду. Вместо совместного планирования в высших органах СЭВ правильно выбрать такую альтернативу, при которой интегрируются определенные функции в развитии экономических связей стран, но при которой, однако, соблюдается основной принцип национальной самостоятельности, остаются национальное планирование, финансовая и кредитная система, национальный бюджет и хозяйственное управление. В такой трактовке экономическую интеграцию мы как бы встраиваем в самостоятельные национальные хозяйства на стыке общих национальных интересов.

Мы утверждаем, что можно развивать экономическую интеграцию, сохраняя рациональную степень национальной самостоятельности.

Третий вопрос: *достаточно ли развивать экономическое сотрудничество на основе межправительственных связей, или же следует развить международное экономическое сотрудничество между предприятиями?*

Как известно, настоящая практика сотрудничества в принципе строится исключительно на межправительственных связях; предприятия являются скорее исполнительными органами, у них нет возможности проявить самостоятельную инициативу, или же они проявляют ее только через правительственные органы. Преимущество этой системы состоит в том, что правительства имеют должную осведомленность о делах сотрудничества, и в особых случаях ими обеспечивается приоритет государственных аспектов. Отрицательная же сторона этой системы, помимо тяжеловесности и медлительности, заключается в том, что большинство возможностей сотрудничества остается вне поля зрения. Наиболее же заинтересованные стороны, т. е. предприятия вскрывают лишь небольшую часть возможностей для производственного кооперирования, и, признаться, бывают случаи, когда за время прохождения дела через все государственные инстанции часть ожидаемой выгоды теряется.

По нашему мнению, не надо бояться развития прямых международных связей между производственными или торговыми предприятиями. Этим еще не открывается дорога стихийности, ведь сотрудничество предприятий происходит при государственном регулировании, под влиянием интеграционного механизма, зато произойдет оживление в экономических связях. Задача, таким образом, состоит в следующем: дать гораздо больше простора взаимным связям между предприятиями, трестами отдельных стран-членов СЭВ путем создания такой системы заинтересованности (валют, пошлин, налогов и т. п.), при которой стремления предприятия всегда могут быть направлены в желаемом направлении. В соответствии с этим в будущем взаимосвязи стран поддерживались бы на трех уровнях. Первый уровень — это межправительственные связи (в первую очередь, в вопросах планирования, финансов и внешней торговли), второй — это связь между отраслями экономик (согласование концепций развития отраслей), а третий — это связи между предприятиями, трестами и т. п. (конкретное промышленное кооперирование и область внешней торговли).

Мы предлагаем нынешние, слишком привязанные к одному уровню связи между нашими странами постепенно распространить на три уровня.

Четвертый вопрос: *развивать ли нам нашу взаимную внешнюю торгорлю на базе натурального товарообмена и жесткой системы цен, или же создать развитую валютную систему, допуская определенное движение цен?*

Ответ, по существу, зависит от того, каким методом можно ускорить в наших странах научно-техническое развитие, распространение новых конструкций и технологий, вытесняя одновременно технически устарелые изделия, не пользующиеся большим спросом. Преимущество системы натуральной товарной компенсации в том, что она заведомо в большой мере обеспечивает внешний сбыт продукции, а это особенно важно для развивающейся промышленности. Сегодня уже велики и минусы этой системы. Дело в том, что товарная компенсация всегда может быть только двухсторонней, она не позволяет развивать внешнюю торговлю на многосторонней основе, расширяя таким путем международный рынок. А из-за этого наши страны лишаются огромного преимущества — здорового стимулирующего воздействия многосторонних связей на производство, товарообмен и потребление. В то же время основной недостаток фиксируемых на длительный период цен состоит в том, что они, хотя и дают покупателю определенную гарантию в отношении цен, но неизбежно отдают его на произвол поставщика в отношении качества, современного технического уровня и сроков поставки, а вследствие неправильных цен нередко и сам поставщик становится незаинтересованным в поставке. Ныне, таким образом, эта система имеет больше минусов, чем плюсов.

Несомненно, следует сохранить систему согласования товаропоставок, строгую по одним группам товаров и только генеральную — в отношении других. Это может быть выгодным для стран. По определенным видам про-

дукции требуются твердые цены, а по другим целесообразнее создать возможность для их подвижности. Главное, что мы должны выйти из нынешнего состояния. Из двух возможностей мы выбираем создание развитой монетарной системы СЭВ и гибкую систему внешнеторговых цен. Без этого мы даже не можем и представить себе развития в будущем. Посредством реальных и координированных валютных курсов мы сможем установить органическую связь между внешеними и внутренними ценами, а для калькуляции предприятий — выяснить положительные и отрицательные стороны экспорта, импорта и заграничного кооперирования с точки зрения экономического эффекта. Создав обратимую валюту, мы сможем обеспечить условия для многосторонних внешнеторговых расчетов и возможность свободного и быстрого развития внешней торговли между нашими странами.

Мы считаем, таким образом, необходимым заложить новые фундаменты для развития внешней торговли на многосторонней основе и валютного сотрудничества.

Пятый вопрос: *должен ли регулирующий принцип взаимосвязей стран-членов СЭВ заключаться в механической фикции «равенства» или в требовании реального «равноправия»?*

Этот вопрос может показаться буквоедством, не являясь, однако, таковым, потому что в нем сформулирована одна из характерных дилемм действительности. По сути дела он заключается в том, должны ли мы механически требовать того, чтобы в обмене результатами научных исследований, в торговле, в различных проявлениях сотрудничества все страны в одинаковой мере принимали участие и вносили свой вклад, или же мы должны учитывать различные условия стран, их своеобразное положение и возможность неодинаковой их заинтересованности в том или ином мероприятии.

Если какая-либо страна не заинтересована в том или ином совместном институте, должны ли мы ожидать того, чтобы она с целью демонстрации нашего единства все же принимала в нем участие? Не думаем, чтобы это было правильно. Может ли воспрепятствовать незаинтересованность одной или нескольких стран остальным странам продовить совместную деятельность? Это ни в коем случае не может быть правильным. Можно ли требовать от страны, у которой мы закупили оборудование на определенную сумму, чтобы она купила у нас оборудование за такую же сумму, если она в нем не нуждается? Такое равенство было бы не только механическим, но и очень опасным. Должны ли мы ожидать того, чтобы во всех странах-членах СЭВ была тождественная система внутреннего управления, аналогичная экономическая политика и равный жизненный уровень? В таком случае мы бы возвели на престол наших идей нереальное желание.

Мы должны, таким образом, решительно отвергнуть требование механически трактуемого равенства в связях между нашими странами, как не имеющее реального основания. Сравним, например, положение нашей страны

с положением СССР. Венгрия никогда не может стать механически равной Советскому Союзу, хотя бы из-за различий в их природных условиях и экономических масштабах. Нам, например, нечего стыдиться, если речь идет о венгерской научной жизни, ведь в определенных областях науки мы занимаем первые места или находимся где-нибудь в середине. И все же в целом мы никогда не сможем сравняться с советской наукой. Научно-исследовательская мощность Советского Союза приблизительно равна США и больше, чем во всех остальных странах Европы, вместе взятых. Очевидно, что для нашей промышленности важно еще больше опираться на достижения советских научных исследований. Или возьмем другой пример. Во внешнеторговом обороте нашей страны доля СССР составляет 35%, что равняется 14% нашего национального дохода. В то же время во внешнеторговом обороте Советского Союза доля Венгрии равна всего лишь 6%, что составляет 0,3% национального дохода СССР. Когда мы ведем переговоры о торговых поставках, одинаково ли значение этого вопроса для обеих стран? Едва ли. Значит, мы не в одинаковом положении. Лучше принять к сведению, что по ряду вопросов заинтересованность стран может быть различной, что следует учитывать в двухсторонних и многосторонних связях.

Суть нашей позиции заключается в том, что и при интеграции следует последовательно осуществлять равноправие стран, взаимно уважать интересы друг друга. И необходимо принять к сведению, что в ряде областей невозможна тождественность, а поэтому не может быть одинаковой ни внутренняя экономическая политика, ни методы внутреннего управления.

Вот основные принципиально-политические вопросы, на которые следует дать ответ в интересах развития сотрудничества. Данные мною ответы основываются на занятой в предварительном порядке Центральным Комитетом позиции, но, естественно, в индивидуальной формулировке.

Основные черты предлагаемой системы интеграции в рамках СЭВ

По нашим соображениям, экономическую интеграцию следовало бы осуществить, — посредством своеобразного сочетания координации планов и регулируемого международного рынка — двигаясь одновременно в двух направлениях: с одной стороны, путем согласования важнейших мероприятий экономической политики, затрагивающих международное разделение труда, а с другой стороны, путем увеличения роли товарно-денежных отношений. Одновременному осуществлению этих факторов способствуют проводимые в странах-членах СЭВ реформы экономического механизма, общей чертой которых является сочетание центрального планирования с товарно-денежными отношениями.

Развертывая социалистическую интеграцию, мы предполагаем достичь *усиленного продвижения следующих экономических процессов — носителей подлинно общих интересов:*

— прекращения «автаркического» характера научных исследований и осуществления оживленного научного сотрудничества, в особенности установления международных вертикальных связей, обеспечивающих единство «науки — производства — реализации»;

— значительного, выходящего за рубежы стран расширения производственного кооперирования и специализации на основе материальной заинтересованности предприятий, в особенности в промышленности, но в определенной мере — и в сельском хозяйстве;

— согласованного в международном масштабе развития отдельных отраслей или крупных объектов, в которых значение новой производительной силы перерастает рамки национального хозяйства;

— обеспечения широкого ассортимента товаров во всех странах-членах СЭВ из лучших, пригодных для экспорта продуктов стран-партнеров путем постепенного распространения свободной торговли машинами, предметами потребления, продуктами кооперирования;

— в особых случаях предоставления возможности для объединения общественных капиталов наших стран в рамках совместных предприятий, а также для передвижения рабочей силы в общих интересах.

Полному развертыванию этих процессов должно служить правильное использование средств интеграции — координации планов, торговой политики, валютно-финансового механизма, совместных предприятий и мероприятий.

Как я уже упомянул, по нашему мнению, каждая страна должна самостоятельно определять свою экономическую политику и базой интеграции будут служить национальные системы (государственное планирование, государственный бюджет, национальная валюта и т. д.) народных хозяйств. Однако в рамках СЭВ необходимо будет в согласованном порядке анализировать темпы и пропорции развития отдельных национальных хозяйств, взаимно изучать их, согласовывать цели экономической политики, а также торговую политику в отношении третьих стран, включая и капиталистическую интеграцию.

Координации планов следует придать новое содержание. Желательно, чтобы в будущем она распространялась не только на согласование самих планов, но и на двухстороннее и — во все большей мере — многостороннее согласование лежащих в основе этих планов соображений экономической политики, направлений развития, на прогнозирование некоторых узловых вопросов, а также на согласованную разработку перспективных плановых прогнозов. По нашему мнению, целесообразно, чтобы координация планов не охватывала всего комплекса проблем национальных хозяйств, а направлялась в первую очередь на вопросы «с тяжелым удельным весом». Таковы, например,

основные энергетические вопросы, поставка важнейших цветных металлов, поставка комлектного оборудования и т. п. Согласование вопросов такого типа, естественно, должно приводить к заключению межправительственных соглашений и контрактов по поставке товаров между предприятиями.

Координацию планов, согласование направлений развития в будущем целесообразно дополнить одновременным созданием системы мер, служащих их осуществлению. Сюда относятся повышение эффективности важнейших экономических инструментов регулирования, создание организационных форм сотрудничества предприятий и отраслей, а также согласование мер и методов, способствующих динамичному развитию экономических связей со странами третьего мира. К работе по координации планов целесообразно привлечь наиболее заинтересованные в ней предприятия, хозяйственные единицы.

С развитием международного социалистического разделения труда усиливается экономическое соединение национальных производственных аппаратов. В этом решающую роль должны приобрести производственное кооперирование и специализация. Наше продвижение вперед в этой области зависит теснейшим образом от модернизации системы сотрудничества в том направлении, чтобы не административные меры, а более соответствующая экономическая заинтересованность, более эффективное стимулирование обеспечивали более интенсивное кооперирование и специализацию. Первостепенное требование заключается в том, чтобы для участвующих хозяйственных единиц было ясно, каких экономических преимуществ могут они достичь посредством кооперирования и специализации. Страны-члены СЭВ должны обеспечить в основном это в рамках своих внутренних систем хозяйственного управления.

Мы должны работать над созданием такой обстановки, в которой сектора-потребители могли бы — в рамках возможностей центрального государственного регулирования — решать соответственно своим экономическим интересам, покрывать ли им свои потребности из отечественных ресурсов или же из ресурсов других стран, а производители могли бы в зависимости от своей экономической заинтересованности избирать направление реализации своей продукции. Для этого безусловно требуется значительное расширение прямых связей между предприятиями. Это не исключает, однако, возможности установления сотрудничества на уровне отраслей, там где это обосновано и рационально. В отношении кооперирования и специализации особенно важно подчеркнуть, что в них должны участвовать только заинтересованные страны.

С расширением *кооперирования и специализации между предприями в международных масштабах* значительно увеличится мощность участвующих в ней предприятий, можно будет устранить так называемые «узкие места» в производстве, предприятиям не понадобятся некоторые капиталовложения, которые можно будет использовать для других народнохозяйственных це-

лей. Естественно, технически устаревшему изделию не может помочь и кооперирование, и в таких случаях установление сотрудничества явно бесполезно. Задача, таким образом, состоит в том, чтобы в наших странах существовал хозяйственный механизм, способствующий специализации передового рентабельного производства.

В связи с международной интеграцией возникает возможность *осуществления общей для наших стран аграрной политики*, включающей специализацию части производства, увеличение оборота сельскохозяйственных продуктов внутри содружества, совместное использование достижений селекции, создание единой и регулируемой зоо-ветеринарной системы.

За последнее десятилетие мы могли убедиться в том, насколько велико значение международного кооперирования для развития сельского хозяйства. Основной фактор подъема отечественного сельского хозяйства заключался в том, что крупное производство в сельском хозяйстве смогло использовать современную агротехнику, начало применять лучшие сорта и породы, ознакомилось с эффективными методами производства. Достаточно напомнить высокоурожайные советские сорта пшеницы и подсолнечника, распространение американской гибридной кукурузы, западногерманское участие в подъеме птицеводства. Перед кооперированием между странами-членами СЭВ открыты громадные возможности. Таким образом мы сможем, в частности, обеспечить базу повышения жизненного уровня и улучшить экспортоспособность наших стран на мировом рынке.

Одна из больших проблем общей аграрной политики — это нынешний уровень сельскохозяйственных цен. В этой области цены мирового рынка не отражают действительной производительности труда и реальных соотношений издержек, как цены промышленных изделий, а ниже их, так как и в капиталистических странах сельское хозяйство субвенционируется. А эти пропорции цен тормозят развитие в рамках СЭВ торговли аграрными продуктами. Выходом из этого положения представляется или переход к системе стоимостных цен на сельскохозяйственные продукты или же разработка общей, согласованной политики субвенционирования.

Экономическая интеграция требует *изменений в области научных исследований и технического развития*. Принципы и методы, применяющиеся в научно-техническом сотрудничестве социалистических стран, пожалуй, «заржавели», большая часть их исполнила свое историческое призвание и сегодня уже не отвечает растущим требованиям. В области научных исследований и технического развития еще проявляется тенденция изолированности стран, и излишнего параллелизма; согласование научно-исследовательских программ зачастую проводится формально и бюрократически; отсутсвие материальной заинтересованности задерживает как развитие сотрудничества, так и свободную передачу научно-технических достижений, одним словом, внедрение науки в производство. Не регламентирована охрана промышлен-

ных прав между странами-членами СЭВ, ряд проблем, связанных с изобретениями, а также употребление фирменных марок.

Каким образом можно повысить эффективность нашего научно-технического сотрудничества? По нашему мнению, открывая и в этой области путь социалистической интеграции, главным образом, в следующих направлениях:

— Научный потенциал заинтересованных стран следовало бы в большей мере использовать для общих целей, расширяя двух- и многосторонние прямые международные связи между научно-исследовательскими институтами.

— Необходимо лучше координировать программы научно-технических исследований; как в области научных исследований, так и в техническом развитии надо достичь разработки перспективных прогнозов и организации гибкой и «скорой» системы информации.

— Следует последовательнее реализовывать принцип материальной заинтересованности во всех сферах научно-технического сотрудничества с тем, чтобы использующий научные достижения возмещал их международную стоимость, и бесплатный обмен ими в будущем производился лишь в порядке исключения. В таком случае заинтересованность в использовании научно-технических достижений дополнится заинтересованностью в их передаче.

— Научно-технические исследования следует теснее связать со специализацией и кооперированием производства; необходимо широко развернуть вертикальное сотрудничество между исследователями, производителями и потребительями.

— Определенную часть научно-исследовательской деятельности необходимо интегрировать для достижения выдающихся целей, частью путем организации совместных институтов, частью же посредством международной специализации национальных научно-исследовательских институтов.

— В интересах ускорения распространения и использования продуктов умственного труда между странами, участвующими в интеграции, надо создать новый механизм учета и распространения научных результатов, лицензий и патентов.

Из сказанного выше явствует, что мы считаем неотъемленным орудием экономической интеграции координацию народнохозяйственных планов, выходящее за пределы стран развитие производственного коопрерирования и специализации, а также развитие научных исследований в общих интересах, их лучшую привязку к производству. Но этого еще мало для достижения цели. В качестве активного орудия интеграции следует создать торговую и финансовую регулирующую систему интеграции.

Тогда возникает вопрос: *как развивать товарно-денежные отношения, соединяющие наши страны, какой должна быть создаваемая нами система торгового и финансового регулирования?*

Я перечислю, какие соображения имеются у нас в связи с этим, что мы считаем необходимым.

Во-первых: национальные рынки стран-членов СЭВ, соприкасающиеся сегодня еще по ограниченной поверхности, следует постепенно развить в общий, интегрированный рынок. По-моему, это и есть наиболее критический момент, как бы отправной пункт расширения сегодняшней экономической системы национального характера до регионального международного экономического содружества, чего нам не избежать. Следует поставить целью, чтобы участвующие в интеграции страны открыли друг перед другом свои рынки. Но необходимо реально считаться с тем, что в ближайшем будущем откроется возможность лишь для ограниченного, частичного осуществления этого; полное достижение этой цели возможно лишь в перспективе. Создавая интегрированный рынок, мы отнюдь не откроем простора стихийным рыночным воздействиям, так как основные процессы экономического развития должны управляться координированной экономической политикой государства и регулироваться совместно построенной системой регулирования СЭВ. Интегрированный рынок способствовал бы развертыванию соревнования между предприятиями в области производительности труда, технического и качественного уровня, расширению кругозора хозяйственных и технических работников; открыл бы возможность для ускорения технического прогресса.

Во-вторых: мы хотим развить внешнеторговую систему, сочетающую планомерность с гибкостью. В интересах этого необходимо изменить нынешнюю систему внешнеторговых соглашений, открыть дорогу свободной торговле между нашими странами определенными товарами, а также обеспечить наряду с твердо устанавливаемыми внешнеторговыми ценами большую роль свободным ценам.

Взаимный внешнеторговый оборот стран-участниц мы в дальнейшем предполагаем регулировать, в первую очередь, посредством долгосрочных межгосударственных соглашений, и даже целесообразно, чтобы их значение росло по сравнению с годовыми соглашениями, хотя, естественно, и в будущем нельзя отказаться от последних. Систему межгосударственных контрактов следовало бы гораздо более дифференцировать в соответствии с характером и хозяйственной ролью различных товарных групп.

а) Костяк соглашений о товарообмене и в дальнейшем должны представлять виды сырья и товаров, имеющие фундаментальное значение для народного хозяйства, по которым в долгосрочных и годовых торговых соглашениях должны устанавливаться по отдельным позициям количественные контингенты и условия поставки.

б) По другой товарной группе оборот должен происходить на основании межгосударственных глобальных контингентов. В таких случаях в правительственных соглашениях устанавливается лишь общая стоимостная сумма, как бы в качестве намечаемого контингента, заполняемого затем предприятиями.

в) По третьей группе товаров — главным образом в области торговли

продукцией машиностроения и предметами потребления — постепенно следовало бы перейти к либерализованному обороту в рамках экономического содружества. Сначала это можно осуществить в узком кругу — может быть, по 10—15% предметов потребления и небольшой части машин и оборудования, но позже можно постепенно расширить этот канал товарного обращения. В этой категории, таким образом, оборот полностью определялся бы потребностями национальных потребительских рынков и возможностями поставляющей страны, без ограничительного действия государственных контингентов.

Предлагаемая система требует, чтобы при заключении межгосударственных внешнеторговых соглашений растущую роль получали хозяйственные единицы; распространялась практика международных соглашений между предприятиями-производителями и торговыми организациями; поощрялось заключение долгосрочных контрактов между предприятиями. Все это одновременно требует от предприятий более целеустремленных действий на рынке, знания многостороннего рынка СЭВ и хорошо функционирующей системы взаимной рыночной информации.

Необходимым условием усиленного стимулирования внешней торговли между нашими странами является сочетание твердых цен с подвижными ценами в рамках более гибкой системы внешнеторговых цен. Цены и в будущем должны определяться исходя из цен мирового рынка и посредством взаимно устанавливаемых предпочтений увязываться с производственными издержками, а также с требованием равновесия спроса и предложения. По нашему предложению, индивидуальные цены должны устанавливтаься лишь по тому ограниченному кругу, в рамках которого внешний товарооборот и в дальнейшем регулировался бы участвующими странами в центральном порядке. На длительный период твердые торговые цены устанавливаются лишь по тем товарам, по которым заключаются долгосрочные соглашения на поставку.

В других областях товарных связей, в которых обращение товаров будет происходить в рамках глобальных контингентов или в либерализованной системе, предполагается устанавливать в центральном порядке не цены по отдельным товарам, а лишь принципы ценообразования, на основании которых конкретные цены будут устанавливаться самими предприятиями и трестами. Мы считаем важным и необходимым, чтобы по определенной части товарооборота предприятия уговаьивались между собой о ценах, ища и находя посредством этого возможность и выгоду дополнительных заказов и поставок.

В-третьих: мы считаем необходимым последовательно развернуть многостороннюю внешнеторговую систему вместо нынешней системы, строящейся на двухсторонних связях и лишь формально соблюдающей принципы многосторонности. Следует, однако, подчеркнуть, что для этого недостаточно осуществить многосторонность лишь в отношении административных

расчетов, а необходимо частично снести экономические ограничения национальных рынков и обеспечить более свободные товарные связи. Для этого можно использовать многосторонние производственные или товарные соглашения, а также соглашения по развитию и предпочтению свободной торговли между нашими странами.

По нашему мнению, для развития многосторонних связей необходимо создать рациональную и эффективную систему таможенных пошлин СЭВ. Она предусматривается в форме национальных таможенных систем, действующих в координированной системе, на основании единых принципов. Имеющийся у нас опыт убедительно предупреждает нас о том, что и социалистическим государствам нельзя отказываться от системы пошлин, чтобы не оставлять неиспользованным эффективный экономический инструмент. Естественно, нам требуется таможенная система не против друг друга, а в связях вне содружества. Благодаря ей мы сможем приобрести важное экономическое орудие при совместном торговом выступлении, для обеспечения рационального протекционизма нашим товарам в странах-членах СЭВ. При помощи пошлин мы сможем оказать преимущество социалистическим странам, стоящим вне СЭВ; в нашей внешнеторговой политике мы сможем благоприятствовать развивающимся странам — оказывать им льготы по сравнению с капиталистическими странами. И, наконец, посредством системы пошлин мы сможем добиться безоговорочного предоставления взаимных выгод в капиталистических странах.

В-четвертых: мы также предлагаем развить свою систему валютного сотрудничества в рамках СЭВ. Дело в том, что многосторонность требует, с одной стороны, увязки национальных и внешнеторговых цен внутри интеграции, с другой стороны, органической связи между внешнеторговыми ценами и ценами мирового рынка. А это возможно лишь посредством валютной системы.

Внутри интеграции мы должны прежде всего суметь увязать национальные системы цен с внешнеторговой системой цен. Однако эту очень сложную и разветвленную проблему можно решить не при помощи техники ценообразования, а созданием развитой монетарнойси стемы СЭВ, при помощи вашютного механизма, обеспечивающего реальные основы для внешнеторговых расчетов в рамках СЭВ как в централизованном порядке, так и в сфере предприятий. Для этого требуется, чтобы общая валюта стран-членов СЭВ функционировала как действительное средство платежа, или же мы должны признать национальную валюту одной из стран-членов СЭВ — а практически это может быть только рубль — общей резервной валютой и основой системы обратимых валют. Для этого также необходимо экономически реально установить стоимостные соотношения общей валюты стран-членов СЭВ и их национальных валют. Таким путем мы сможем создать систему многосторонних финансовых расчетов и одно из важных условий обратимости национальных валют.

Осуществив это, мы сделаем возможным увязку международных стоимостных отношений с национальными системами стоимостей. Только применение валютного курса в качестве ценообразующего фактора позволит устранить ограничения двухстороннего товарооборота, осуществить действительную многосторонность. Только при наличии реально устанавливаемых валютных курсов и валютного механизма можно осуществить материальный процесс сотрудничества — специализацию и кооперирование производства, научно-техническое сотрудничество, создание общих предприятий.

Однако мы сможем только постепенно двигаться вперед по пути осуществления обратимости валют. Создание полной обратимости обшей валюты не представляется реалным в скором будушем. Согласуемое на многосторонней основе развитие, повышение технического уровня стран-участниц, существенное повыщение их экспортоспособности — вот путь, который в конце концов приведет к обратимости. В то же время представляется целесообразным уже в ближайшем будущем предпринять согласованные шаги в интересах частичной обратимости нашей общей валюти. При этом напрашивается и представляется полезным такое решение, чтобы сальдо, складывающиеся в кругу многосторонних расчетов СЭВ, постепенно покрывались участвующими странами в обратимой валюте. Это могло бы практиковаться в сфере товарооборота, осуществляемого по ценам мирового рынка.

Отмечаемая здесь важная роль товарно-денежных отношений предполагает организацию на новых основах банковской и кредитной системы СЭВ. В рамках многостороннего экономического сотрудничества значительно возрастает значение и усилится активность кредитной политики в финансировании как товарооборота, так и капиталовложений. Банк международного сотрудничества, сохранив и расширив свой характер как центра расчетов, должен развиться в институт, поистине выполняющий функции международного банка, производящего банковские операции, стимулирующие интеграцию. Во всяком случае необходимо осуществить — возможно, организуя Инвестиционный банк СЭВ — предоставление средне- и долгосрочных кредитов для капиталовложений, представляющих для стран-членов СЭВ общий интерес, для поощрения международного кооперирования, для совместной закупки лицензий.

Я хотел бы подчеркнуть, что сказанным до сих пор я намеревался начертать картину единой, логически связанной интеграционной системы. Мы считаем очень важным разработать конкретную программу в общей, комплексной форме, не выделяя и не решая обособленно того или иного элемента интеграции, так как последнее не привело бы к успеху. Партии и правительства заинтересованных стран могут принять правильное решение по существу только на основании комплексной программы. Приняв такую программу, осуществлять ее уже можно постепенно. Первую половину 1970-ых

годов можно было бы считать своеобразным переходным периодом, а вторую — уже периодом развертывания интеграции.

Для осуществления экономической интеграции стран-членов СЭВ требуется, чтобы ее поняли и с ней согласились широкие массы. Наша партия понимает свою руководящую роль таким образом, что в своих политических мероприятиях она опирается на поддержку рабочих, крестьян, интеллигенции. И сейчас мы хотим поступить так же. Но что скажут обо всем этом трудящиеся? Интеграция приятна и выгодна во многих отношениях, но она ставит перед нами и определенные трудности, потому что почти всем производственным деятельностям в рамках СЭВ надо будет отвоевывать свое место, соревнуясь в повышении технического уровня и производительности труда, а это будет труднее, чем на собственных национальных рынках, так как все наиболее развитые единицы нашего лагеря будут участниками интеграции.

Но вопреки ожидаемым трудностям, я полагаю, что широкое общественное мнение поддержит интеграцию, ввиду приобретаемых в ее результате очень важных *преимуществ:*

— Интеграция откроет перед рядом отраслей новые перспективы развития, и ее общим эффектом будет ускорение экономического роста.

— В результате международного соревнования в повышении производительности труда по значительной части промышленности уровень издержек, затрат не будет превышать мировой уровень, что окажет благоприятное воздействие на уровень заработной платы трудящихся.

— Трудящиеся массы смогут выбирать на отечественном рынке из большего ассортимента товаров лучшего качества, скорее исчезнут дефицитные товары, и посредством международного туризма шире откроются ворота братских стран перед нашими трудящимися.

Если эти планы станут явью, и сложится более тесное экономическое содружество стран-членов СЭВ, то значение этого процесса перерастет пределы экономической жизни и рубежи наших стран. Мы можем быть уверены, что это станет важным фактором в политическом развитии Европы и даже окажет воздействие на мировую политику.

Анализируя эти ожидаемые, более широкие эффекты интеграции, я, естественно, подразумеваю не только ее создание, но и успешное ее развитие так, чтобы участвующие в ней социалистические страны приобрели в ней хорошее орудие для достижения своих экономических целей, для своего национального процветания.

Какое влияние может оказать экономическая интеграция стран-членов СЭВ на международные отношения?

Помещая на карту мирового хозяйства еще одну интеграцию, социалистическая интеграция усиливает интеграционный процесс, наблюдаемый во все более растущей мере за последние два десятилетия в мировой хозяйстве и мировой политике. Эту усиливающуюся тенденцию порождает обостряю-

щееся научное, техническое и экономическое соревнование, протекающее к тому же между участниками, не располагающими одинаковыми возможностями. При помощи интеграции СЭВ мы сможем упрочить свою позицию по сравнению с остальными интеграциями и, главным образом, Европейским экономическим сообществом, применяющим крайние дискриминационные меры по отношению к социалистическим странам.

В результате нового развития содружества увеличится вес стран-членов СЭВ в мировой экономике, их участие в мировой торговле. А это очень важно, так как наши страны играют в мировой экономике роль, меньшую их возможностей. На это указывает тот факт, что в наших странах живет 11% населения всего мира, нами производится более 30% общей промышленной продукции мира, и в то же время наша доля в мировой торговле едва превышает 10%. Наша роль в международном товарообмене и кооперировании производства относительно мала. В результате интеграции станет возможным особенно быстрое расширение кооперирования и торговли между участвующими странами. Это поможет увеличению веса наших стран в отношениях с капиталистическими миром, и мы сможем отвоевать себе более выгодное место в мировом экономическом соревновании.

К весьма существенным изменениям может привести и развитие единой таможенной и валютной системы СЭВ. Это не только придаст самостоятельный облик нашей роли в мировом хозяйстве, но и даст нам в руки важные орудия для обеспечения независимого от доллара и от воздействий международного валютного рынка положения. Располагая ими, мы сможем более эффективно дифференцировать наши экономические отношения с развивающимися странами, с одной стороны, и с капиталистическими, с другой стороны. Представится возможность для включения через некоторое время стран-членов СЭВ в формирование финансовой политики в мировых масштабах, и эта область, таким образом, перестанет быть исключительной сферой действий капиталистических стран и их группировок.

Посредством нашей интеграции мы сможем демонстрировать капиталистическому миру больший экономический потенциал и в то же время оказывать большую политическую поддержку международному рабочему классу, ведущему тяжелую борьбу во всем мире с монополистическим капиталом. Эту борьбу мы сможем поддержать не только косвенно, укрепляя наше экономическое содружество, но и непосредственно, применяя в его развитии такие политические и экономические решения, которые понятны и приемлемы борющимся рабочим, коммунистам, и которые они смогут хорошо использовать в своей борьбе.

Какие международные политические проблемы возникают в связи с интеграцией, и какова наша позиция в этих вопросах?

Стоит под вопросом, с какой мировой обстановкой считаться нам в наших политических планах, в рамках какой политической стратегии раз-

вивать нам программу наших действий. Не может быть сомнений в том, что наши планы мы можем ориентировать только на мирные условия, на то, что империализму не удастся раздуть очаги локальных войн в мировую войну, что проблемы, грозящие сегодня войной, можно разрешить в результате политической борьбы. В то же время следует реально считаться и с тем, что и предстоящий период может быть только периодом относительного мира, чреватым угрозой разражения дальнейших международных конфликтов. Такая обстановка делает возможным экономический рост, но не позволяет сконцентрировать все материальные и организационные силы всех наций мира на решение экономических вопросов. В этом противоречии, в усложнении экономических проблем и в концентрации политических усилий в ином направлении проявляется большей частью общий кризис современного капитализма.

Антагонистическое противоречие между капиталистическим и социалистическим строем и впредь остается основной характерной чертой мировой обстановки. Это противоречие проявляется в экономическом соревновании и политическом противостоянии двух систем. Хотя американский профессор Голбрэйс справедливо отмечает, что в развитых промышленных странах наблюдается сходство в связи между техникой и человеком, и что техника управления также проявляет тенденцию к сходству. Но основательное непонимание вещей отражает его тезис о том, что якобы должна последовать какая-то конвергенция, сближение общественных строев развитых капиталистических и социалистических стран. Направления их развития различны, и экономическая активизация социалистических стран может привести скорее к обострению противоречий, чем к обратному. Это, однако, не должно и не может привести к прекращению или хотя бы к сужению экономических связей между социалистическими и капиталистическими странами.

Интересы социализма не требуют экономической изоляции социалистических стран. Интеграция может послужить нашим важным орудием в успешном соревновании с капиталистическим миром, закрепить экономическими успехами нашу политическую борьбу и оказывать большую коллективную поддержку развивающимся странам в решении их серьезных и длительных экономических проблем, чтобы они не стали игрушками в руках международного монополистического капитала. Мы и в дальнейшем должны считаться как с серьезной проблемой с экономическими и общественными обострениями в развивающихся странах. Социалистические страны должны уметь указать этим странам иную альтернативу, чем капиталистические страны, чтобы в перспективе поставить третий мир на сторону социализма.

Мы должны в будущем учитывать, что в капиталистическом мире, а в определенной мере и в третьем мире усилятся стремления к экономической интеграции. Это просто-напросто вытекает из объективного положения, заключающегося в том, что применение новейших достижений науки во

всем их спектре сопровождается такими потребностями в специалистах, капитале и рынке, какими по существу располагают только две страны: Соединенные Штаты и Советский Союз. Именно поэтому малые и средние страны ищут возможных для них путей интеграции.

В связи с интеграцией социалистических стран может возникнуть вопрос, не было бы ли возможным и рациональным осуществить интеграцию стран-членов СЭВ с поддержкой СССР извне, поскольку Советский Союз и сам по себе представляет собой огромную интегрированную экономическую единицу, совсем или почти совсем не нуждающуюся в дальнейшей интеграции. Я хотел бы подчеркнуть, что как по политическим причинам, так и из экономических соображений наша категорическая позиция заключается в том, что существование нашего будущего экономического содружества мы считаем возможным и правильным только при теснейшем участии в нем Советского Союза. Политически потому, что основной залог успеха интеграции — это политическое сплочение и союз наших стран. А главная политическая сила нашего лагеря — это Советский Союз. Экономически же потому, что для остальных стран — в том числе и для Венгрии — интенсивное участие СССР в интеграции открывает громадные экономические возможности. Огромный советский рынок расширяет хозяйственные возможности, а советские научные исследования и советская техническая мощь являются основной базой нашего сплочения. Мы же, малые страны должны или создать огромный научно-исследовательский аппарат, подготавливающий для нас технику и производство будущего, или же «строить» наш технический прогресс на уже существующей научно-исследовательской базе. Без Советского Союза нашим странам даже вместе взятым не под силу создать огромную и дорогостоящую научную базу, способную в полной мере стать фундаментом технического прогресса. Научная база Советского Союза может стать одним из самых мощных ресурсов интеграции. Неправильно полагать, что Советский Союз не заинтересован в экономической интеграции. Он также может выиграть на интеграции, развивая с ее помощью свою систему технического кооперирования, свои научно-технические связи с промышленностью группы стран в 100 миллионов человек, приобретая возможность для разрешения посредством сотрудничества ряда трудностей развития, характерных для крупных экономик. Меньшие социалистические страны, могут значительно способствовать расширению товарного ассортимента экономики СССР.

Интеграция, таким образом, может быть выгодной только при активном участии Советского Союза; только так считаем мы ее возможной.

Развивая интеграцию СЭВ, мы должны уделять особое внимание дальнейшему укреплению и расширению сотрудничества с остающимися вне ее социалистическими странами. Мы должны поддерживать наши экономические связи с этими странами на основе принципов предоставления особых взаимных преимуществ и братской помощи, что является естествен-

ной политической платформой наших стран. В вопросах, относящихся в сферу интеграции, в будущем надо будет найти наиболее рациональную экономическую систему такого сотрудничества.

Для Европы особенно будет характерна в будущем региональная интеграция. Должно ли это привести к дальнейшему экономическому расчленению континента, к распадению Европы на части? По нашему мнению, нет. Наверное, будет разумно установить и поддерживать определенные контакты между экономическими интеграциями в вопросах, относящихся в коллективную компетенцию сообществ. Но с нашей стороны мы не представляем себе таких отношений в Европе, чтобы между участвующими в различных интеграциях правительствами не было экономических связей по существу, и чтобы в компетенцию правительств не входили важные экономические вопросы. Наоборот, по нашему мнению, имеются такие вопросы будущего экономического развития Европы, которые требуют даже общеевропейского сотрудничества, как, например, вопросы научного кооперирования, европейской торговли, развития инфраструктуры в Европе, расширения коммуникационной сети, иностранного туризма и т. д. Посредством интеграции, таким образом, мы не хотим оторваться от экономической жизни континента, а наоборот, участвовать в ней еще более эффективно.

Из сказанного мною вы могли познакомиться с соображениями, сложившимися в руководстве нашей партии о дальнейшем развитии экономического сотрудничества. Вы могли узнать по некоторым вопросам и мою личную реакцию на эти соображения, когда я пытался логически интерпретировать позицию партии, приводя более или менее удачные аргументы. Все эти вопросы в настоящий момент находятся в стадии анализа и подготовительных дискуссий. Партии и правительства наших стран совместным трудом разрабатывают окончательную программу, которую и мы должны будем формировать, отстаивать и претворять в жизнь.

THEORETICAL AND PRACTICAL PROBLEMS OF SOCIALIST ECONOMIC INTEGRATION

R. Nyers

The article presents a lecture held by the author at the Political Academy of the Central Committee of the Hungarian Socialist Workers' Party.

The subject belongs to a range of novel problems. Twenty years ago, when socialist construction began and the Council for Mutual Economic Assistance was brought into being, an international economic integration was not yet needed. Only ten years ago, national resources still seemed sufficient to secure rapid development without integration. Today, integration is already a timely problem, in fact, it is reckoned as one of the crucial questions of future economic development.

International economic integration cannot be considered either as a capitalist or as a socialist specialty. It is the natural result of both social systems.

What will be identical and what different in the principles of integration under capitalism on the one hand and socialism on the other? What is *identical is that the measures of economic efficiency and profitability will in both cases come under the control of an international market and technical progress will take place in an international climate.* Yet, the dif-

ference will be decisive and this follows from the differences in social systems. Capitalist integration is built on the interests and the system of interests of monopoly capital, while *socialist integration is based on the common interests of the national economies, on the common interests of the working classes and peoples of the countries concerned.*

Integration is not opposed to the present methods of cooperation but follows, as it were, from them, and means an improvement in their form. It is, however, also true that integration is not only a continuation of the present system, but transcends it as a new method in a new phase of development.

In the present forms of cooperation, relations between national economies are developed by means of state coordination, the cooperation between enterprises of different nationality is, however, rather narrow in scope. Though there exist already certain elements of integration and economic community (as e.g. a common bank, the common park of railway freight wagons, specialization in production), but these are partly negligible, and partly lack the character of international integration. The ideal type of the present system is a well coordinated cooperation between national economies, by means of coordinating on high level, in interstate agreements, the deliveries of commodities in physical terms. Thus, the basic principle underlying the method employed hitherto was coordination by the state whereas that of the new system emerging now is a combination of state coordination with the economic incentive role of integration. This is a substantial difference between the two methods and the two principles.

The author then proceeded to the role of CMEA in the economic history of the last two decades, summarizing the most essential results of cooperation, the facts relating to the economic development of the associated socialist countries and speaking of the necessity of improving economic cooperation. Of the tasks facing the countries concerned, he pointed out three: 1. New sources of economic growth must be disclosed and the disproportions hindering a dynamic development must be abolished. 2. In certain economic branches a way must be opened for the international concentration and a greater specialization of productive forces. 3. The competitiveness of the CMEA countries on the capitalist world market must be increased and an efficient economic system must be built out to counteract the harmful effects of the world market. In order really to solve these three tasks, a powerful new motive power must be introduced into the system of cooperation.

Why are new sources of economic growth needed? Because in the CMEA countries the existing sources are near exhaustion and will be even less sufficient in the future. *The possibilities of extensive industrialization have been exhausted in several socialist countries and are nearing that point in others.* There are two factors at work which will render further extensive industrialization sooner or later impossible: the exhaustion of labour reserves (which are not available in the composition necessitated by the complex development of production and services), and the fact that the sales in foreign markets can be increased only in up-to-date, cheap and high quality goods. One of these two would in itself raise enough problems — their combined appearance lends special emphasis to the necessity to modify the direction and to follow the trend of intensive industrialization.

Why is it necessary to facilitate more than now the concentration and specialization of productive forces in the CMEA countries? Because the present situation does not sufficiently promote the revolutionary progress of technology in these countries. Isolationism appears in scientific research and production cooperation, and a rigidity in external trade.

It is characteristic of the Hungarian engineering industry that in the twenty years from 1947 to 1967 only 63 major patents or licences were bought from abroad, most of them since 1962. This scientific isolationism is harmful to the development of the economy.

Cooperation in production has to some extent developed between the CMEA countries; it is growing but its field has remained rather narrow.

The existing methods of external trade also hinder the development of international cooperation and specialization. On the one hand, the bilateral exchange of goods favours only bilateral specialization where multilateral specialization would be needed and, on the other hand, "overplanned" trade offers little possibility for the trade in goods whose production cannot be accurately planned in advance but are highly important to and urgently needed by the importer country.

It is undeniable that the *internal markets* of the CMEA countries are — with the exception of the Soviet Union — too small individually, a fact that paralyses development of the most dynamic economic branches. And when they are nonetheless vigorously developed, the production pattern of the countries in question will tend to move in a parallel direction, as could be clearly seen in the last decade. The causes of these problems must be sought, not in the nationalist approach, but in the hindering effects of the eco-

nomic mechanism. A deficient coordination of national economic plans and the lack of harmony between development concepts may be blamed for the creation of these parallel trends. But the roots of the problem must be seen in the effects of the limitations of narrow national markets, in the division of economic calculation into national and enterprise calculations, and in the grave economic difficulties of really clarifying the national interests.

In a socialist system, the interrelations between politics and the economy are more obvious than under capitalism. *Changes in political trends entail modifications of the economic directions, resulting in a new unity of political and economic tendencies.* As a positive example, let us take the 20th Congress of the Communist Party of the USSR which determined programmatically the political direction of the communist movement for our era proclaiming, as it did, principles which have been adopted by the socialist countries. This has then led to essential changes in economic policies. The great lesson that can be drawn unequivocally from the outbreak and the defeat of the counterrevolution in Hungary is that the ideas which were hitherto most clearly formulated by the 20th Congress must be followed. This recognition has become the basis of the policy of the HSWP. Economic policy, too, had to be brought into harmony with these ideas and that required a thorough revision of earlier policies. This once carried out, a more or less consistent policy could be followed since 1957. Correct political ideas have thus a favourable effect on the economy.

R. Nyers analyzed in detail the theoretical and political problems involved in the further development of CMEA. He is of the opinion that the principles of cooperation must be put on a new basis. We need not be afraid of developing direct contacts between productive and trading enterprises over the national boundaries.

Accordingly, economic integration should be attained by proceeding *in two directions*: on the one hand, the decisions on economic policy which affect the international division of labour should be harmonized and, on the other hand, the role of commodity and money relations should be increased.

Above all, it should become possible to link within the integration the national price system with the system of foreign trade prices. This complex and far-reaching problem can, however, be solved not by pricing techniques but only by bringing about a CMEA monetary system with a currency mechanism providing a realistic basis for inter-CMEA trade settlements both in the central sphere and in that of the enterprises. For this it is necessary that the common currency of the CMEA countries should function as a real means of payment or the national currency of some CMEA member country — and this could be practically only the rouble — should be acknowledged as a common reserve currency and as the basis of the convertible currency system.

It must, of course, be seen that but slow progress can be made on the road towards convertibility of the currency. It seems unrealistic that full convertibility of the common currency could be achieved in the near future. This can come about only as a result of a long process. At the same time, it seems expedient to take harmonized steps already in the near future in the interest of rendering the common currency partially convertible.

The increased role of commodity and money relations here outlined will entail and also presupposes the basic reform of the bank and credit system of CMEA.

It is considered highly important that the concrete program should be worked out in a comprehensive and complex manner, that not only elements of integration should be examined and solved separately, because this will not lead to success. The parties and governments concerned can take correct decisions only on the basis of a complex program. Should such program be accepted, its implementation could take place already gradually. The early 1970's can be expected to become a particular transition period and the later years of the decade the period of emerging integration.

If the plans come true and a closer economic community of the CMEA member countries will be really established, the importance of this process will outgrow the economic field and also the frontiers of the CMEA region. It will become an important factor in the economy of Europe and will make its effect felt even in world politics. Development of the community in this novel manner will gradually increase the weight of the CMEA countries in the world economy and their participation in world trade. With the development of the customs union and currency system of CMEA it will become possible after some time for the member countries to join in the formulation of a financial policy of world dimensions, and this field will thus cease to be an exclusive arena of activities of the capitalist countries and interest groups.

In the future, regional integration will be particularly characteristic of Europe. The question arises whether this should lead to a further economic fragmentation of the

continent, to a Europe torn to parts. In our opinion, it should not. Most likely, it will be expedient to create and maintain some contact between the integrated economic groups on the questions which fall into the common competence of the community. But for our part, we cannot conceive of a situation where there are no actual economic connections between the governments participating in different groupings and where governments have no competence in important economic problems. Through integration we do not intend to leave the economy of the continent but participate in it more effectively.

The ideas put forward in the lecture are now in a stage of analysis and preliminary discussion. The final common program will be worked out by the CMEA parties and governments in common.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (2), pp. 155-168 (1969)

I. HETÉNYI

ECONOMIC DEVELOPMENT AND LONG-TERM PLANNING*

Planners in Hungary are nowadays drafting the new Five-year Plan for 1971—1975 and the outlines of a perspective plan for the period between 1971—1985. The author summarizes the main problems to be solved while preparing the plans. Initial conditions, main targets and problems of planning techniques are surveyed.

It is generally known that long-term planning in Hungary centres at present on the preparation of the new five-year plan for 1971—1975 and of another plan covering the years 1971 to 1985. In this lecture, I will deal with the question of long-term planning. This involves, of course, the danger of an approach exclusively from the long-term aspect. I should like to avoid this by all means. We have to consider the long-term plan as part of a system of plans covering periods of different lengths, and it has a justification of separate existence only in so far as it has a particular function which differs essentially from that of the others.

Deputy prime minister Mátyás *Timár* has dealt in his lecture with the tasks of economic policy which have to be faced at present and in the near future. I shall consider these as the bases of the long-term plan, especially in respect of the relationship between consumption and accumulation, employment, the regulation of the market and the fulfilment of international obligations.

First of all, we must reckon with the fact that several problems of long-term planning can be solved in the framework of five-year planning. In my opinion, with adequate working standards there is a possibility in the framework of five-year planning

— to determine the requirements and concepts of economic policy which cannot be left to the operation of the market mechanism, as e.g. the socially and economically justified level of employment, the relationship between consumption and accumulation;

— to assess the realistic rate of growth;

— to plan the requirements of economic equilibrium, as e.g. the condi-

* Lecture delivered at the 1968 Scientific Session of the Hungarian Economic Association in Budapest. A report on the whole session may be found on pp. 199—205. (Ed. note).

tions of a relatively stable price level, the rate of utilization of resources, the extent of financial obligations which can be firmly supported by the state;

— to determine the proportions of production and consumption, taking into account also the market aspects, to secure their harmony, and to decide accordingly on the development of major individual products and technologies and on the main investment projects.

There are, however, processes of major importance whose economic effects reach far beyond the framework of a five-year period. A realistic assessment of part of these, the working out of their trends of development, and their ranking is possible only on the basis of harmonious long-term tendencies (plans). Without directions fixed in long-term plans, there is a danger that in these questions current tendencies will be too closely followed, the tasks will not be duly weighted, or weighting will be biassed in favour of the short-term approach.

It should, of course, be carefully considered what can be planned in the long-term. It would be, for instance, wrong to think that since our existing problems cannot be solved in five years, the purpose of a long-term plan is to distribute these over a period three times as long. A real assistance would be if the long-term plan helped to avoid such problems which would without it pose themselves tomorrow or after 8 or 10 years, in order that other weighting standards than present-day problems could be applied when working out the directions of development.

Thus, the main thing is to plan the solution of realistically solvable problems with the aid of realistically applicable methods.

Utilization of international and domestic experiences is, therefore, of great importance. In this connection, I should like to point out, first of all, the GOELRO, as a plan which has, in my opinion, most adequately answered up to now the international political, social and technological tendencies and requirements. However, because of the difference in time and place, its conception cannot be considered now as one to be immediately followed. The attempts since then of the socialist countries in this direction, and their various methods — often similar to those used in five-year planning — have not led to workable and applicable planning concepts.

The capitalist economic literature gives valuable impulses in respect of computing methods, but these are characterized by a lack of the aspects of economic policy. Even the best do not rise above the level of consistent forecasting. In France, however, a remarkable attempt has been made at the prognosis of social problems.

Our own 1961—1962 experiment in twenty-year planning, although a first attempt, does not seem to have been a path-breaking one. In many respects it followed the lines of five-year planning. Our analyses recently concluded did, however, yield some lessons which affect the methodology of long-term plan-

ning. Thus, e.g. it can be seen that some ideas then thought to be typically long-term problems have changed relatively quickly. This happened e.g. to the concepts elaborated in respect of the products and technology of power production and the chemical industry. Processes, on the other hand, which we thought to be easily changeable by decision, as e.g. the rate of industrial employment, residential construction, the rate of growth in real wages and real income, etc., proved to be less flexible.

In the following, I will touch upon the problems of long-term planning in the following order, built partly on logical considerations:

a) prognoses and hypotheses about the processes which basically do not depend on our decisions;

b) the system of objectives, the economico-political aspects of improving living and working conditions;

c) the rate of growth;

d) some questions of development policy.

My aim is primarily to raise the problems and perhaps indicate the possible answers. The final answers (and the formulation of questions not raised here) remain the task of planning work.

Prognoses and hypotheses

Hypotheses must be formulated, in my opinion, in respect of international politics, the characteristics of the scientific and technological revolution, the world economic processes and the future of our domestic endowments. For these processes, usually alternative hypotheses may be drawn up (and these will, perhaps, lead also to planning alternatives). The alternatives which are probable to such an extent as not to allow any other alternative hypothesis, I will call prognoses.

In world politics we may reckon with the continuation of the policy of peaceful coexistence, with conflicts occurring from time to time. The leading powers of the two camps continue to be the USA and the USSR. The differences and contradictions between the developed and the developing countries will not diminish, nor can we reckon — at least for the next decade — with the developing countries' essentially approaching the socialist countries. From all that, it may be concluded that

— the defence burdens of our economy can be shaped proportionately with our potentials;

— the political bases of our economic connections are determined by our adherence to the socialist camp;

— we may plan widening economic connections with the capitalist world, above all with Europe, from where we may take over technological processes under improving conditions.

Scientific and technical progress will rapidly continue. The difference between the USA and Western Europe will be essential for a considerable time, but the relative position of the USSR will essentially improve on the basis of her own results and of the application of American-type technologies. Therefore, as regards scientific and technical achievements, the USSR may offer us more than any other partner. This co-operation is important because in the progressive branches of the economy — above all in the fields of automation and computer techniques, atomic and biological processes — the rate of progress of scientific and development activities is quicker than that of economic growth and in several branches the rational scale of capacities of the production of materials and intermediary goods grows quicker than global demand for final products.

In world-economic relations the market tendencies in traditional raw materials and advanced products will continue generally to shift in favour of the latter. However, the world food situation and its effect on our intensive agriculture demand closer investigation. As a new phenomenon, a developing integration of the CMEA countries has to be reckoned with, determined by an intensive industrial progress of the socialist countries. This means that in future the segregation of economic relations due to the differing quality of products within and without the CMEA may cease to be warranted and the intensity as well as the pattern of trade will be shaped by a more general harmonization of economic policies and by the common political interests. This may have far-reaching effects e.g. on achieving a surplus in our trade in engineering products.

Our present *domestic endowments* must not be mechanically projected to the future as valid preconditions. In this context the following internal endowments deserve attention:

— *Demographic processes.* According to demographic forecasting variants, the population of Hungary is most likely to reach by 1985 the 11 million mark. Working-age population will be 6.3 million. It is worth attention that the latter figure means a decline from a higher figure around 1975. This fluctuation must be reflected in the plans.

— *Qualification and living standards.* The competitiveness of our industry is at present aided by the fact that the qualification of manpower is relatively high in comparison to the general level of development. If a quicker growth of consumption than hitherto is planned, we must reckon with a diminishing of this doubtful "advantage". This will not do any harm, since with a really dynamic development this difference will dwindle at the same rate as it becomes useless. But this must also be reflected in planning the development of the pattern of the economy, e.g. that of the textile industry.

— The importance of agricultural endowments will remain if we are able to adapt ourselves technically to the export requirements. Our situation promises to remain lastingly favourable particularly within the socialist integration.

— As a long-term tendency, we may reckon with a modest but growing role of transport and tourism, and with the decline of mining.

Considering the above factors and the present state of our large-scale farms and, last but not least, the reform of economic control and management, in our long-term plan it is possible to forecast a situation for the second half of the seventies where all preconditions of an intensive development will have been created and will reciprocally act in the same direction.

System of objectives (social, living and working conditions)

The purpose of socialist planning and economic development is to improve living conditions as quickly as possible. The growth of the consumption fund is a summary but, precisely therefore, an imperfect expression of this improvement. It will, therefore, perhaps be better to speak about a system of objectives of living conditions. It is only natural that such a system of objectives can be formulated only as a function of the economic development level. The interrelations between the objectives of living standard policy relating to social development on the one hand, and the economic development level on the other, are of decisive importance for the formulation of an economic policy in the stricter sense, i.e. for the production and consumption policies.

The reason why I begin the discussion of the related problems of living standard policies and economic development level with the problem of living standards is that the latter constitutes at the same time the factor influencing the rate of growth (through length of working time, the volume of residential construction, etc.), and also because, due to its direct political bearings, it does not depend on the minor differences in estimating the level of development which always occur in the course of planning. (Living standard policy will depend on whether the development level is y, 2y or 3y but it will not be affected by the fact that there may be a deviation of $\pm$ 15 per cent from these levels.)

Of the problems of living standard policy only those must, of course, be dealt with here which are of structural importance or constitute an active condition of development. From among these — without pretending to completeness — I should like to stress the following ones:

— The proportion between the growth of incomes from work and from other (social) allocations. On a lower development level and in the period of great social transformation, the latter increased quicker. The new system of control and management requires greater emphasis on the incentives to work but, at the same time, it is also a timely task to make family incomes more balanced, mainly by reducing the burden of raising children. It seems that in the next years the incentive viewpoint should obtain greater stress. It must be examined whether the effects of this tendency — which result in an increased

differentiation of incomes and thus in a quicker transformation of the pattern of consumption — manifest themselves to an increased extent only when the increase in employment has slowed down or already before, taking also into consideration that it is desirable that the reform of our consumer price system should be carried into effect largely before 1975, and this in itself should exercise a differentiating effect.

It seems expedient to attain the raising of social allocations in the form of considerable money payments, and to stipulate perhaps the payment of a charge in case of large-scale allocations. Basically, it may be expected that people will be prepared to spend on the family, on higher-level cultural purposes, recreation, etc. out of their money income.

— Even up to now, Hungarian economic policy has paid great attention to the family as a unit of income and consumption. But on the basis of the demographic and employment-policy viewpoints, the role of the family in the economic sense should be more widely interpreted. A more coherent family policy should be enforced in connection with demographic, employment, housing, etc. policies.

To take only one problem, let us examine the interrelations between family size, residential construction and the employment of women. The average size of families is continuously decreasing. By 1985 the number of families will reach 4 million. To secure a separate home for each family, from 1971 to 1985 about 1.2 million homes should be built. The figure is not an exaggerated one. But, if it is evenly distributed, it means that a separate home for each family will be actually attained only in 1985. Hence the efforts to build first more but smaller flats, and to increase the number of rooms and equipment only gradually. But life is in contrast with this policy; between 1957 and 1966 the number of homes built per year has not increased, whereas there was a great improvement in quality. (In 1957—59, 50 per cent of the new homes built were one-room dwellings; in 1964—66 the proportion of the latter was only 20 per cent.) The qualitative composition of the stock of dwellings is thus better than expected. If we add that bigger homes are relatively cheaper to build and that in a perspective of 40 to 50 years one-room flats will answer only the purposes of persons living alone, it is worth while to reflect whether not to proceed deliberately in the direction of constructing bigger flats and promote the living together of three-generation families, on a voluntary basis, aided by housing rent policies, the cyclical or part-time employment of women, etc.

— We also reckon with a natural slowing down of the occupational re-stratification process, but something must be done in the interest of rendering the regional re-stratification more planned. One aspect is a more rational regional distribution of jobs. Another is the supply of the population with so-called servicing institutions: the development of settlements. The latter is a frequent source of social tensions. Though this has objective causes, it is worth while

to examine the truth of the hitherto prevailing idea which sharply separates the tasks of the state, the enterprises, the local bodies, and the population, and which means by social tasks essentially those to be performed by the state. Thus, e.g., it seemed for a long time obvious that to provide for residential construction is the duty of the state, that the costs of social insurance (the health service) should be borne by the state, etc. This conception is now undergoing a change, in both fields mentioned. But even the tasks which remain the responsibility of the state are greater than can be realistically performed within a reasonable time. If we add the requirement of increased work incentives, the question arises whether it would not be more expedient gradually to develop a system of taxation which would better serve the urban and village development objectives in the wider sense of the word.

Even from this rough enumeration of the problems the conclusion may be drawn that long-term planning must rely in the future much more than hitherto on a wide range of social sciences (demography, sociology, etc.) and must promote complex cooperation between these disciplines.

It follows from these concepts about the living conditions and the rate of growth, that employment, incomes, consumption and social-cultural problems will, of course, be the subjects of planning, on the basis of a methodology that will help to provide for the adequate foundations for production and infrastructural development. A more detailed, professional description of this does, however, exceed the framework of this lecture.

The rate of growth

For a longer term, the rate of growth can be established hypothetically and by zones. The planned growth rate will depend on the volume of resources and the planned efficiency of their utilization. These interrelations are usually indicated by the labour force, the fixed assets and the output turned out with their aid.

I am going to draw up a hypothesis in this way for industrial development and will approach its relation to the whole of the economy by means of hypothetical ratios of industrial employment, investment and production. This is by far not the best method. The procedure has been chosen in lack of reliable data and time.

In my calculations I start from the labour aspect, since the expansion of assets is itself a function of the assumed development.

The starting point will be the 6.3 million people of working age, already mentioned. From this, the activity ratio of men and the number of students can be relatively easily established. The activity ratio of women is at present 71 per cent. Let us assume that this can rise to a maximum of to 75 per cent.

Further, the decline in the number of gainfully employed old people can be expected to stop since it is in the interest of society to keep employed in specific fields men over 60 and women over 55 as well. Thus, the labour force will be 5.36 million ± 100 thousand. (This represents an annual compound increase of 0.6 per cent as against 1.1 per cent up to the present.)

Employment in industry and construction is now 38 per cent of the total. Growth has been rapid up to now. (If industrial employment were to increase at the present rate, in 1985 73 per cent of total employment would work in industry.) Let us start, therefore, from the structure of countries which are now on a similar level of development as that aimed at in Hungary by 1985. According to such data, the "normal" employment pattern is 40 per cent in industry, 13 in agriculture and 47 per cent in other branches of the economy. More detailed calculations have shown that the share of agricultural employment will by 1985 be in the neighbourhood of 17—19 per cent. Therefore, estimating industrial employment to reach the level of 40—43 per cent, the share of the other sectors will be 40—43, somewhat less than in capitalist countries on a similar level but essentially higher than today.

My calculations of the available fund of working time are based on the assumption of a working week of 40—42 hours and paid holidays usually one week longer than now. It follows that total man-hours to be worked in industry may move in 1985 between 93 and 104 per cent of the 1967 level, i.e. remain practically unchanged.

In the years 1951—1965, the average annual increase in the productivity of labour per man-hour was 4.1 per cent (between 1961—65, 5 per cent). Reckoning with a smaller inflow of new labour, higher qualification and better organization and incentives, I start from an annual increase in productivity per man-hour of 6.5 per cent, or 50 per cent more than in the preceding 15 years and 30 per cent higher than attained in the period of the second five-year plan. Thus, the assumed growth rate of industry will be 6.5 per cent.

In the last 17 years, the contribution of industry and construction to the creation of national income increased from one third to 52 per cent (calculated at 1968 prices). I have assumed a share — equally at 1968 prices — of 60—65 per cent by 1985. (At current prices it will be presumably smaller.) In this case *it may be assumed that the growth rate of national income will be 5.4 per cent.* In case of a deviation of ± 0.5 per cent, this may still be regarded *the same* variant.

The calculation has been checked also from the point of view of fixed assets. In view of the new tendencies in mining, I have performed the calculation for the manufacturing industry (inclusive of electric energy). According to these approximate calculations, within the 6.5 per cent growth rate for industry, manufacturing must grow at an annual average rate of 6.8 per cent. Let us further assume that the relation between output and the net value of fixed

assets will remain constant, on the level of the past ten years. A further requirement is that the growth rates of national income and investment are the same and the share in investments of the manufacturing industries will not change. (We may reckon with the fact that the share of mining investments will decline within the total to half of the present 6—7 per cent and thus the share of total industrial investments may diminish from 36—39 to 33—35 per cent.) The question is, therefore, whether the present absolute level of investment in manufacturing meets all assumptions, that is, whether their growth rate of 5.4 per cent can secure an annual increase of 6.8 per cent in the net value of fixed assets in manufacturing. According to my calculations, performed on the basis of 1965—67 data, the answer is in the affirmative, though changes in investment definitions render accurate calculations rather difficult.

The question may be raised whether, under these conditions, investment in the so-called tertiary sectors will develop satisfactorily. Most likely so, provided that within accumulation the inventories can be relatively reduced, and if the share of investments increased in favour of the tertiary branches. In addition, in the long term we may also reckon with a decreasing share of agricultural investments.

With the assumed rate, the general development level of Hungary will by 1985 — according to the calculation system of and the trend computations performed by Jánossy and Ehrlich — somewhat surpass the level recently attained by the countries of the Common Market.

Of course, these hypotheses are open to discussion. But it will be worth while to argue only about the deviations which exceed an annual $\pm$ 0.5 per cent, and it will be expedient to question not the final results but the initial assumptions.

Infrastructure

Within the framework outlined above, an outstanding role will be given to the formulation of development concepts for the infrastructural branches, primarily those of

energetics,
transport and communications,
water economy,
residential construction and public utilities,
education and vocational training,
health service.

These can be planned in the long term, since the claims on them can be estimated with relative safety, and they must be planned owing to their particular role, their long gestation period and great capital intensity.

Today, there are tensions in several fields of the infrastructure (in respect

of quantity or up-to-dateness, or both). At the same time, in our planning practice there is a danger to exaggerate — by which I mean only the claims exceeding material possibilities — because

— the social reaction to existing tensions is strong;

— a comparison with more advanced countries, based simply on the present development level, does not take into account the cumulated national income of past decades and the resulting possibilities of accumulation;

— we are inclined to underestimate claims in respect of quality and the costs of complex development;

— there are objective reasons for striving for safety.

In the course of the discussions the exaggerations will presumably appear in the guise of opinions which hold the assumed rate of growth of national income to be slow and the share of infrastructural investments to be low. As a matter of fact, this is the first step towards an optimistic and irrealistic assessment of investment possibilities on the part of the state.

All this means that planning should be most careful and circumspect in measuring and ranking. In my opinion, as a first task, residential construction should be raised from its present level of 5.5—5.6 units per 1000 of population to 8—9 units per thousand heads.

The problems of regional planning are closely connected with the development of the infrastructure, though the scope of regional planning is wider. The desired territorial changes depend, however, on the general development of infrastructure; at the same time, they also suggest new points of view regarding the infrastructural proportions, e.g. the interrelations between residential construction and transportation.

On the planning of production

At the beginning of my lecture I have mentioned that I would consider the planning of concrete products and technologies as well as of investments essentially the subject of five-year planning. The long-term planning tasks of production could be classified into two groups:

a) *Planning the connections between output level, macro-structure and input.* The task consists in establishing, in harmony with the general hypotheses, the pattern by main branches of production (industry and agriculture; the main groups of industry) with the aid of technical and economic computations; in performing comprehensive calculations about the allocation of production; in clarifying the relationship between production and inputs (e.g. products, manpower, investments). These calculations will serve to verify the correctness of the general hypothesis.

The calculation of the production structure (e.g. for 12 to 18 branches)

may start from the general structural tendencies of production, from international experiences; on the other hand, it must also start from the estimated changes in the patterns of consumption, foreign trade, investments and productive inputs. I believe this approach from two sides to be essential. Not as if the coordination of sectors for 1985 could be directly inserted in the finished plan, but because with its aid the conceptual differences, which may easily go lost in verbal description, can be disclosed.

However, the structural changes in the large aggregates indicate only the framework and do not express in a developed country the substance of the changes in structure.

b) *Planning the changes in structure to provide a basis for development programs.* I should like to draw attention to two possibilities of approach:

One is to plan *structural pre-conditions* of meeting *well-defined needs* in an up-to-date way. These include:

— *Demand for energy.* One of the most stable elements in this field is the planning of demand for electric energy. Experiences of the past, international analogies and technico-economic calculations, all indicate a level of demand for energy in 1985 to be about 50 thousand million kWh. As a fuel basis, a practical application of atomic energy and the creation of hydrocarbon-fuelled power plants may be reckoned with in the first place. It will be advisable to plan the concrete program for building power plants and imports for shorter periods of time only, taking care that there should always be at hand 2 or 3 alternatives concerning the next decision to be taken.

The planning of demand for fuels is much more controversial. Up to 1965, a dynamic development could be experienced. Recently, the growth in demand for fuel has sharply diminished and it is questionable whether this tendency is lasting. The problem poses itself as follows: should our conceptions be based mainly on the assumption that with an adequate fuel pattern prospective specific fuel consumption must not exceed in order of magnitude the corresponding international levels? In this case, due to the relatively high actual consumption level, the plan should be based on an extremely *slow growth rate.* — Or should we consider as determinative our own growth rate in fuel demand up to now and that of the countries with a relatively lower specific fuel consumption? In this case, *a higher* specific fuel consumption must be planned, but this involves planning to attain an identical national income with greater fuel inputs than the majority of the developed countries. The difference is substantial. By projecting the trend between 1955 and 1967, the demand for fuel would by 1985 reach 31—33 million kgcalories, while on the basis of the present specific fuel consumption in the western countries, it should be only 22—25 million. The great difference shows the "degree of freedom" in planning.

— *Demand for and planning of structural materials.* Demand for structural materials is continuously growing and its pattern is considerably changing.

There is a possibility of forecasting the requirements of technological progress either in a comprehensive manner or by major objectives e.g. building, machinery, etc. without going into the details of development by concrete products (as e.g. types of plastics or kinds of steel, etc.). The proportions between the uses of steel, wood, silicates, plastics, etc. can be forecasted, and preparation in due time secures considerable economic advantages. The problem is a complicated one because examples may be found for non-realization of new tendencies as well as for the premature abandonment of traditional materials.

— In my opinion, the so-called protein problem also belongs to this complex. This involves the planning of the (industrial, agricultural or foreign trade) combinations which can solve the problem of supplying the population cheaply and satisfactorily with animal proteins.

It will probably be necessary to work out still further — but not too many — subjects of this character.

Another task — which is partly overlapping with the former — is to plan long-term demand for and the large scale production of *homogeneous products* which can be relatively safely assessed from the point of view of expectable demand and production conditions. This type of planning — justified mainly in relation of certain raw materials and foodstuffs — helps to plan the main aggregates (it is, so to say, a basic calculation of the latter) and to assess the demand for resources of the individual branches (e.g. animal husbandry). Together with assessing the technical tendencies, the possibility of a competitive production and the resulting production alternatives may be estimated (e.g. the future perspectives of crude iron production).

But in modern production, the propelling force is precisely the creation and marketing of quickly changing products which, exactly for this reason, have up to the present been left outside of the scope of planning. These cannot be planned by individual products. The substance of such changes in structure and the long-term requirements of development could be approached by analysing the qualitatively new technologies and by planning their domestic introduction. It would be the task of technical experts to determine the technological steps which pre-condition the reaching of a higher degree of development and whose introduction should be provided for in the long-term plan. In this respect we can only follow the more advanced countries, but the time difference (in terms of years) in the introduction of advanced technologies must be much smaller than in respect of the usual indicators of the development level as e.g. the supply of homes, steel production, the number of cars, etc. Cases in point are e.g. the preparations for introducing high-precision technologies, or the production of high-purity materials, the introduction of technologies applying new principles (atomic techniques, computer techniques). The requirements of changes of this type may be assessed for the longer term, while their concrete form of implementation can be built into a five-year plan.

In other words, we have to prepare technico-economic concepts which affect the whole of the national economy or its major part, and which point out development directions to attain new technological levels.

Planning the participation in the international division of labour is closely connected with the development of production. It is not my intention to speak about the foreign trade aspects of this problem. Obviously, the international cooperation ideas of major development concepts will come into the fore when planning the pattern of foreign trade. I should like to stress again that it is a separate aspect of long-term planning to formulate the common efforts and actions of the CMEA countries in major questions pertaining to the production of basic materials and to technical-scientific cooperation.

I do not *wish to discuss here problems of planning methodology in the narrow sense*. But I should like to call attention to a problem affecting the relationship between the parts and the whole. According to the current methods of five-year planning, the central planning apparatus is receiving in the course of planning from the experts on the field concerned *one single* variant, considered to be the best one, with the intention to make it the basis of the optimal plan. Realistic weighting can be effected, however, only if *variants* for the development of individual fields or regions can be compared with one another. Therefore, partial concepts must be elaborated in several variants and submitted to the planning centre for weighting.

As regards the problems of living-level policies, international economic relations, and regional development, a few fundamental concepts of economic policy, the main roads of development have to be marked out. As regards, however, the productive branches, it is not so much the level of economic activity (production, services, investment, exports, imports) that must be determined but rather the specific inputs and specific results of the activities for the various alternative hypotheses and decisions, the various technico-economic "concepts".

Central, economy-wide planning must be in a position to produce from this raw material some well-defined and consistent plan-variants reflecting different socio-political preferences. On the basis of qualitative indicators, the planners must choose the combinations which answer the various criteria of alternative decisions. This means, at the same time, that planning must be able to determine the consistent level of various activities (the rates of growth in production, consumption, investment, foreign trade, and their proportions) even in several variants.

The number of variation possibilities is great. Due to this fact, and owing to the particular character of long-term planning, it is important *to employ also mathematical models and methods* in working out the system of the main economic interrelations, for drawing up *complex* plan-variants.

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From what has been said, it can, I believe, be seen that we are still in the beginning phase as regards long-term planning. In many respects, not only the methods, but the problems themselves are still unclear. Apart from that, I think I have dealt but summarily with the problems of the living level, international economic cooperation and technical progress. This was on purpose since I had to take into account the other programs of this scientific conference. Other subjects too, may have been neglected. I beg to be excused on the grounds that the time available for this lecture was only one hour, while the period to be covered by the long-term plan is — inclusive of the leap-years — 131,496 hours. I am looking forward to your remarks — and thank you for your attention.

ЭКОНОМИЧЕСКОЕ РАЗВИТИЕ И ПЕРСПЕКТИВНОЕ ПЛАНИРОВАНИЕ

И. ХЕТЕНИ

В области перспективного планирования в настоящее время актуальны две задачи: разработка нового пятилетного плана на 1971—75 гг. и подготовка перспективного плана на 1971—85 гг.

В перспективном планировании необходимо учитывать международную политику, характерные черты научно-технической революции, процессы мировой экономики, а также внутрение условия и возможности. В первой части статьи автор рассматривает эти факторы.

В дальнейшем на цифровых данных анализируется развитие промышленности и его влияние на народное хозяйство в целом.

В заключительной части автор занимается вопросами планирования производства. Задачи перспективного планирования производства он делит на две группы. Одна из них — это планирование связей уровня продукции, макроструктуры и затрат. Другая же — планирование структурных изменений, ложащихся в основу программ по развитию. Сюда относится планирование потребности в электроэнергии, в топливе и т. д.

Наконец, автор рассматривает вопросы планирования перспективных потребностей в однородной массовой продукции (сырья, продовольственных продуктов) и условий их производства. Ввиду большого числа возможных вариантов, а также специфического характера перспективного планирования при разработке комплексных плановых вариантов важно применять математические модели и методы.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (2), pp. 169—179 (1969)

J. TIMÁR

THE LEVEL OF EMPLOYMENT AND ITS EQUILIBRIUM IN SOCIALISM[1]

The author outlines full employment, as a particular state of employment equilibrium, emphasizing its relative, trend-like character. In connection with economic growth he points out the importance of labour mobility, and outlines the reserves of resources which enable mobility even under conditions of full employment under socialist relations. The concluding part of the study treats the factors determining the employment level, the problems of female employment and those of "maximal" employment.

Socialist literature interprets the concept of full employment in two different ways. There is a view holding that it means "full" or "maximum" enlisting of the available labour resources in socially organized activities. According to this definition the concept of full employment is equalled with the category of employment level; hence, "maximum" employment, i.e. "total" utilization of the population's working power is considered to be the principal objective of socialist employment policy.

Others — to whom also the present author belongs — interpret full employment as a *particular* state of equilibrium,[2] in which all persons wanting to work can be employed, in other words, the demand for labour is sufficient to absorb the supply on a social scale. To bring about this equilibrium is *one* of the principal objectives of socialist employment policy. Experience in Hungary and elsewhere shows that in different countries, or in different stages of development of the same country, such an equilibrium may come into existence on different levels of employment.[3]

When defining full employment as a state of equilibrium it should be noted that generally, and in particular under the conditions of our "dynamic",

[1] This is based on a lecture delivered at a symposium organized by the Council of Mutual Economic Assistance on the problems of employment policy in socialist countries (September 25—27, 1967 Budapest).

[2] The term equilibrium is used here not only in the "global" sense, i.e. in respect of total demand on and supply of labour but also regarding the various groups of the labour force distinguished according to qualitative criteria, and not susceptible to mutual substitution.

[3] This question, as well as the movements of the labour force are dealt with in greater detail in the book by J. *Berényi* "Foglalkoztatottság és életszínvonal" (Employment and living standards), Budapest, Kossuth P. H., 1967, and in a MS by G. *Pogány* "Foglalkoztatáspolitika és munkaerőgazdálkodás" (Employment policy and utilization of the labour force), a dissertation for candidature.

ever changing society, any equilibrium must be but relative and transitory. Thus, also full employment can assert itself only in the form of a tendency, subject to continuous mutual effects on the part of the demand on and supply of labour.

The labour force of a society is being perpetually renewed; meanwhile it may increase or decrease quantitatively and also undergo some qualitative changes. In this respect, the biological process of its renewal and its changes determined by demographic factors are most relevant. They are also connected with the development of society. Due to them, in Hungary, about 3 to 4 per cent of all employed manpower is being replaced annually, inclusive of the balance of flows between households and employment, depending mostly on the factors mentioned.

Another no less stable phenomenon is the movement of manpower between jobs, occupations, branches and geographical areas. It takes place mostly owing to plans and decisions made by individual people. These are, however, determined in the last resort by the trends of social and economic development. In Hungary, the resulting changes of jobs are estimated to an annual 14—18 per cent of total employment.

It follows that the two factors mentioned bring about an annual change amounting to 18—21 per cent of total employment, in other words, they affect about one million of employed people. This exchange does not seem to show any periodicity; apart from certain random or seasonal variations, it is a continuous process. As long as this continuous flow of manpower can take place smoothly, without major disturbances, *it does not contradict the existence of an equilibrium, indeed the latter asserts itself exactly through this mobility.*[4] The more freedom is given to the movements of manpower, the more favourable will be the conditions for an equilibrium, i.e. full employment to come about.

This mobility means that, at any time, part of the labour force is always on the way between two jobs. As regards the extent of this movement in Hungary the returns of the labour exchanges supply some information. Through a rather long period, the annual total of persons seeking employment and registered by the labour exchanges has varied between 400,000 and 500,000. Knowing the conditions prevailing on the country's labour market, we may conclude from this that at least a half of the one million changes of jobs mentioned above takes place directly, without an intervention on the part of the labour exchange offices and without any loss of time, in a way that people leave their former jobs only when they have already secured a new one. It is even more remarkable that of all persons figuring in the records of the labour exchange offices, 80—85 per cent had been registered within the last thirty days.

[4] We do not dwell here on the well-known fact that not every kind of mobility may be qualified as necessary and socially useful. This is but another reason for the phenomenon of mobility to be examined and its types distinguished.

The number of those registered before a month or earlier amounts to 10—14,000 only. Of these, again, 80—90 per cent are women, mostly without special skills. It is known that a considerable part of the latter would not accept any available job and are willing to work only under specified conditions (e.g., a permanent day-shift, light and clean work, etc.).

We must endeavour to reduce — as far as possible — the part of the labour force permanently on the way between jobs. This can be done partly by increasing the power of adaptation of labour, i.e. mainly with the aid of education and professional training, and partly by improving the methods and foresight of planning and management. It is evident, however, that a complete elimination of this "mobile part" of the labour force is not possible; indeed, it would not only hinder the achievement of full employment but also impair a rational utilization of manpower.

Mobility of the labour force and labour reserves

Adequate mobility of labour is a condition not only of full employment but also of economic growth in general. The latter involves continuous changes in the branch structure and geographical location of output. Accordingly, also the structure of demand for labour must change. Anything slowing down these changes will put a brake on economic growth. One of the basic conditions of permanent structural transformation is a free flow of manpower in the thousand channels connecting the system of communicating vessels throughout the national economy, ensuring, at the same time, its equilibrium.

In general, a mobility of resources presupposes the existence of reserves; this holds also for labour. During capitalist development, there was a long period when a reserve army of the unemployed has amply provided for the reserves needed by structural changes. Even in our days, in a part of the developed capitalist countries, under conditions described by bourgeois economists as full employment, the reserve army of the unemployed is considerable. For instance, in the United States during the first twenty years following World War II there were thirteen years when the rate of unemployment was above 5 per cent, and it occurred only in 1952/1953 that it went below 3 per cent. The situation is somewhat similar in part of the developed capitalist countries, e.g., in Canada, Belgium, Italy, the United Kingdom, etc. It is worth while to be remarked that a plan of the national economic development of the U.S.A. compiled by a group of planning experts has estimated even for 1970 an unemployment rate of 3.5 per cent, as a corollary of a situation described as full employment.

Some of the developed capitalist countries avail themselves of the vast reserve army of unemployed living in underdeveloped countries. They absorb

into their economy or send back part of the unemployed labour force of the latter according to momentaneous necessity.

In the economically developed socialist countries the problem of labour reserves has a different aspect. These countries have really achieved full employment.[5] Not counting the movements of labour needed for developing and maintaining equilibrium, the number of people unable to find new employment is negligible. Still, a mutually favourable levelling-out of labour reserves between individual socialist countries has yet its difficulties owing to inadequate economic cooperation and integration. In view of this, the question seems justified whether our present labour reserves are sufficient to meet the requirements entailed by those structural changes which must take place in the interest of an intensive economic growth, and which involve changes also in the structure of labour by branches, qualifications and geographic location.

In Hungary, as well as in other countries, opinions may be encountered stating that the right course of a full employment policy would consist in maintaining "reasonable reserves of manpower". Also the strengthening of labour discipline and the growth of productivity is thought to be served by a "limited unemployment".[6]

Better utilization of the advantages and possibilities resulting from the social and economic order of socialism may accelerate economic growth, but not even socialist countries can jump over their own shadow. Long time and hard work are required for liquidating the backwardness inherited from the past or due to adverse conditions. *But even amidst the difficulties of this hard way, the essential features of the socialist system of society must be brought to expression.* And to these features belong, in my opinion, the permanent endeavours to eliminate contradictions between the demand on and supply of labour, to offer a job for everybody wanting to work, *to bring about full employment in a planned way*. Employment policy has to become more rational from the economic point of view, but this must not mean a neglect of social rationality.

In Hungary and in some other socialist countries the present development of labour productivity is unsatisfactory. Labour discipline is poor, and in many places the intensity of labour is under the socially justified level.[7] En-

[5] Some socialist countries have to face serious employment problems owing to particular demographic factors, or structural disproportionalities of development. It is thought, however, that such transitory difficulties do not refute this general statement.

[6] Evidently, this kind of a "planned reserve of labour" or "limited unemployment" cannot be identified with such unemployment phenomena as may appear even in socialist countries owing to special causes, as e.g. in the period of transition during which an economically less developed country is building socialism, i.e. until the harmony between the conditions of production and distribution and the development level of productive forces is yet in the making; or even in an economically more developed country, generally as a result of non-economic (demographic or other) factors. In view of such phenomena, the simplified, declarative statements like "unemployment has once for all ceased to exist in socialism" or "unemployment does not and cannot occur in socialism" are incorrect.

[7] Some would find the cause of this phenomenon in "over-employment". The application of technical terms depends mostly on convention. But it is not owing to the

deavours have to be made to bring about a rational economic structure, a corresponding re-grouping of the labour force and to increase the social efficiency of labour.

It follows from what has been said that, under socialist conditions, the free flow of labour necessary for economic growth, structural changes and equilibrium of employment must not rely upon a reserve army of unemployed. *Planned economy offers us other means and methods for this purpose.* Let us review the main groups of these.

In our days, *general education* has a leading part in the social reproduction of manpower, both by educating and training young people before they enter work and by refreshing or developing the body of knowledge of those already working. Its importance is shown by the fact that, e.g. in the Hungarian national economy total employment increases only by 0.5—1.0 per cent per annum, whereas the number of young people entering work is by 4—8 times greater than this net increment. Thus it depends mostly on the previous education and professional training of the young, whether the requirements set by economic growth and structural change can be satisfactorily met.

The rapidity of scientific and technological progress and of structural changes connected therewith involves a similarly rapid obsolescence of old trades and occupations and the birth of new ones. Therefore, it becomes increasingly necessary for general education *efficiently to develop the adaptability and "convertibility" of labour* in order that part of the labour force could adapt itself to the new requirements arising from their jobs while the rest could change jobs without major difficulty. From this point of view, and also from that of employment equilibrium, it is highly important to bring about adequate coordination between the demand on labour raised by social and economic development, on the one hand, and the system and objectives of general education, on the other. From the latter aspect, we have to fight the permanent danger of a too narrow specialization, and to emphasize those functions of education as serve to develop the capacity of independent thinking and judgement.

A reserve of a different character is supplied by the continuous, two-way *flow of labour between the households and the national economy.* Each year many housewives enter into socially organized work, while others retire to their households. The size and even the sign of the net balance of these movements

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lack of a relevant convention that I disapprove of this term; it is rather because it oversimplifies the complex problems of labour productivity and labour intensity. An increase of labour productivity requires — when labour intensity is on the socially justified level — high qualitaties of management and organization, rapid technological progress and good labour discipline. One of the outcomes may be, then, that part of the labour force becomes redundant provided that there is no possibility of, or no necessity for, increasing output. This eventuality is, however, in this case only a consequence and not the starter of the process. From the "theory of over-employment" it would, however, follow that the restitution of the socially justified level of labour intensity and a rapid rise of productivity could be attained simply by laying off part of the labour force.

may be changed, between the limits set by various social and economic factors. For instance the "allowance serving to help the care of children" recently introduced in Hungary is expected to release from work — transitorily — 5—6 per cent of all employed women between 1967 and 1970. On the other hand, the increasing employment of out-workers performing work essentially at home enlists in socially organized work several tens of thousands of housewives who could not have been otherwise employed.

Another, in some respects similar reserve of labour is offered by *certain economic branches which will need a decreasing labour force in the future.* Of these, *agriculture* has a decisive role. In Hungary and also in some other socialist countries the number of persons engaged in agriculture is bound to fall in the next decades to come partly in such a way that those formerly employed there will find an occupation in other branches. Similar processes may occur also in some other branches, e.g. in coal mining.

Wage proportions have a particular and important role as factors affecting the mobility of labour. Wage differentials may enhance a re-grouping of the labour force, by influencing the decisions of those who enter work, or are on the way between jobs, in favour of occupations most important for meeting the requirements of society in an efficient manner. A flexible wage policy may, when it takes into account the situation of the labour market, help to maintain its equilibrium and to mobilize, at the same time, the labour reserves.

A well-known but — as regards most socialist countries — insufficiently analysed reserve of labour is represented by the *aged people still capable of socially useful work.* In Hungary and other socialist countries, employment rates of the age groups over 60 (men) and 55 (women) were considerably reduced in the past two decades, owing to the legal statutes on pensions due to all employed people who have reached these age limits and to the prevailing manpower situation; at present, these employment rates are lower than in many, more advanced countries. Still, it is possible to tap this labour reserve to the necessary extent without modifying the present regulations and in a way equally satisfying the interests of the national economy and of the individuals concerned.

An even less explored reserve consists in the *more rational utilization of the working capacity of the people employed.* In Hungary the new Labour Code has authorized the enterprises to regulate their working regime according to their own needs, or to adapt it to seasonal fluctuations of output if such are regularly occurring. The new Code has also eliminated the former, too rigid and therefore unreasonable, central restrictions on overtime. Enterprises can now adapt themselves more flexibly to unforeseen minor fluctuations in the amount of labour to be performed. It should be remarked here that we endeavour to maintain an absolute identity of legal and actual working hours. This is particularly important at present, when steps are being made towards a general re-

duction of the legal working time. This makes it possible that whenever there arises a necessity of mobilizing some minor reserves of labour, this can be done without adding to the staff of the enterprise, provided that overtime is duly rewarded and all individual interests are taken into account. In the latter respect, initial experience has shown us that, whereas men generally welcome the possibility of utilizing their time left over by shorter working hours for earning an extra income, women — for reasons easy to guess — tend to insist on using it in their own households.

Finally, a particular kind of labour reserve has to be mentioned, which can be released by *intensifying international cooperation and integration.* Much is yet to be improved in this field and many a problem is raised, but some initial symptoms of progress are already showing up. In a long-term perspective we may realistically count on considerably savings of labour in the frames of a free and mutually advantageous cooperation of the countries concerned.

A planned mobilization and exploitation of all these labour reserves offers still very wide possibilities. For this purpose, however, first of all the improvement of economic planning is needed as a necessary but by far not satisfactory condition of progress. Indeed, the whole system of our planned economy must be improved, a harmonic unity of economic policy, control, management and economic mechanism attained.

The level of employment and its "maximum"

In the last two decades Hungary and other socialist countries have considerably raised their employment levels; in this respect they occupy now high ranks in international comparisons. This development was the resultant of two opposed tendencies. During this period employment rates in the youngest (under 20) and the oldest (over 55—60) age groups considerably diminished, but this effect was greatly overpowered by an increasing activation of the female population.

The fall in the *employment rates of the young* is a direct consequence of a permanent, world-wide tendency. The average length of time needed for general education and professional training is being extended, owing to the growing requirements raised by scientific, technological and economic development. Thus, most young people enter to work considerably later than in the past, since they must learn longer.

The *employment rate of the older age groups* fell, in the main, as a result of the general system of pensions introduced in all socialist countries. This has made it possible for persons having reached pensionable age to retire from economic activity. Though this tendency is also motivated by economic development and corresponds to world trends, the *extent* to which the employment rate

of older people has been reduced cannot be unequivocally called a positive phenomenon. On the other hand, in certain particular situations even a transitory enhancing of this tendency might seem necessary, in order to maintain the equilibrium of employment.

The *employment rate of the female population* deserves most of our attention, since it was due essentially to this factor that the general level of employment could be raised. One component of this change was the economic growth determined by the national economic plans, inducing, under given conditions, a vast increase of employment. As all able-bodied men were fully employed even at the beginning of socialist development, the main resource of additional employment was the reserve represented by the households.

But the considerable increase of female employment and, with it, the general rise in the employment level, was by far not a mechanical consequence of planned economic development or of low productivity, or of the employment policy aimed at full employment. The aim of our *employment policy* was not simply to bring the demand and supply of labour into equilibrium; it endeavoured also *to raise the level of employment, since under adequate other conditions,* a higher level in itself is a powerful component of social progress and economic growth.

In any given period *the raising of the employment* level has its particular conditions which should be practically reckoned with. Of these, *the requirements of economic rationality* seem almost too trivial to be explained. Any additional employment is economically efficient only when, in the production process, live labour is combined with the subjects and the means of labour in due proportions and under adequate conditions, and when the resulting output serves to meet an effective demand. In other words, a higher level of employment must adequately raise the national income of the country.

The *requirements of social rationality* are of a different nature and more complicated to be accounted for. This is so mainly because, as it has been mentioned, the rise of the general employment level depends essentially on the increased economic activity of the female population. The fundament and one of the preconditions of a real equality of rights of women is that they should be able to participate in the social division of labour and to earn thereby independent incomes. In the course of development, however, the requirements of an employment rate consistent with the equality of rights may contradict another requirement connected with the tasks of household work and child-raising which — essentially by tradition inherited from socio-economic historical development — are still mostly performed by women.

To master this contradiction, we must start from the fact that *the work performed by housewives and mothers is socially necessary and useful.* It follows that any extension of their employment is advisable only as far as the "socialization" of their home activities connected with child-raising and catering for

the family can be rationally and efficiently achieved. Thus, when determining the relevant limits, a host of sociological, pedagogical, health and economic factors must be weighed. For instance, it is not advisable to tear out from family frames such tasks the social organization of which would cost more than what society could gain by an additional employment of women resulting therefrom; not to mention that, when socialized, some of these tasks would have to be performed with a lower efficiency and/or in poorer quality.[8]

The contradiction is aggravated by the fact that, owing to the value scales accepted by our society and reinforced by education, the girls leaving schools insist — with few exceptions — on their being employed and refuse to return to, or remain in, households.

This insistence is being kept alive also by other factors. Among these, the higher social prestige of work performed as a profession has an increasing role in socialism. Moreover, as socialist society is a commodity-producing formation, economic activity is pursued with the aim of obtaining a money income. The attainment of individual aims and the satisfaction of needs depends mostly on the size and purchasing power of such incomes. This is reflected in the well-known fact that the differences in standards of living between individual families are determined, besides differences in the money incomes earned by their active members according to the work performed by them, also — and to a great extent — by the proportion of active members to dependants. In other words, for families having the same number of children the main factor determining living standards is whether the mother is employed or not.

It is in the light of such considerations that we have to deal with the various opinions regarding female employment. In the early fifties, opinions prevailing in our country denied the social necessity and usefulness of household work; also the vast volume of this work was grossly underestimated. Therefore, the enlistment of *every* able-bodied woman in socially organized work was thought possible and desirable.

In recent years, rather opinions in the contrary could be encountered, saying that the employment of women is "economically unefficient". In this context, some would venture (but never prove) the argument that the highly productive and copiously rewarded labour of men is one of the characteristics of the economically developed countries where, allegedly, a man is able to pro-

[8] Owing to similar considerations, as early as in 1960 (at the time of the first attempt at long term planning in Hungary) the idea of a very prolongated maternity allowance was raised. This system was introduced in 1967 and improved in 1969. This allowance, called "assistance serving to help the care of children" makes it possible for employed mothers to stay at home until the child completes 2 1/2 years of age. (Recently this has been extended to 3 years.) During this time, the mother receives a comparatively high monthly allowance; afterwards, she is entitled to re-occupy her former job. This measure reduces considerably the demand on nursery accommodations. At the same time, it releases part of the employed women exactly for the period when their working performance is almost inevitable subnormal.

vide for his family without having to rely upon the earnings of his wife.

It is worth while to confront with this belief the statistical returns of the U.S.A. There, between 1900 and 1960, the economic activity rate of females has increased twofold in the age-group of 25—34 years, 3 1/2 fold in the group of 35—44 and fourfold in that of 45—54 years. Taken separately, the economic activity rate of married women has grown even more: to sixfold, from less than 5 per cent to 30 per cent from the turn of the century.

The increasing economic activity of women is *a historical tendency*. In this respect, the main difference between socialist and advanced capitalist countries is not one of quantity. The real difference consists in that in our countries there is a deliberate tendency, based on social considerations, of helping women who want take jobs, and that this tendency is reflected in the considerable amount of assistance afforded to them for facilitating their home tasks. It should, however, be emphasized that *if this assistance is considerable when measured by our economic power and general level of development, it is not yet sufficient to meet justified requirements.* This is a contradiction still waiting for a solution.

The contradictions arising around female employment can be mastered only in the general framework of social and economic development. The right course requires partly that (even in the case of an increasing demand for labour) a higher rate of female employment should not be forced and partly that greater assistance, and a many-sided one, be afforded to mothers having small children or a large family. The institutions for the care of children as well as all services facilitating household work must be energetically developed. The direct contributions of society to the costs of providing for children must be augmented. Finally, there are various possibilities of shortening actual working hours for women desiring to participate in socially organized work (e.g. part-time employment, outwork, etc.). By all this, it must be attained that women have a really free choice between household work and employment.

Every socialist country endeavours to accelerate its economic growth and the improvement of living standards. The various measures aimed at a better system of planned economy and the economic mechanism, however different they may be, serve the same objectives everywhere. Everywhere, social and economic development presupposes a continuous increase of labour productivity and efficiency. *Under given circumstances, this postulate may come into conflict with what the equilibrium of employment would require.* In such emergency, the dual nature of employment policy has to be taken into account.

Employment policy is not only a part of economic policy; it also serves the direct realization of objectives determined by *social policy*. As such, it is itself a *factor of living standards*. However, the attaining of full employment or of a higher employment rate must not be an end in itself that could be striven at against, or independently of, all other fundamental objectives set by social

and economic policy. *Our task is precisely to bring about an employment equilibrium — by all means available for influencing both sides of the balance — in a way that it contributes to mastering transitory contradictions, to efficient social and economic progress.*

РАВНОВЕСИЕ И УРОВЕНЬ ЗАНЯТОСТИ ПРИ СОЦИАЛИЗМЕ

Я. ТИМАР

25—27 сентября 1968 года в Будапеште состоялся научный симпозиум специалистов социалистических стран о проблемах занятости. Данная статья представляет собой текст доклада автора на этом симпозиуме. В качестве введения автор кратко характеризует две различные трактовки понятия «полной занятости». По его мнению, полная занятость — это специфическое равновесие рынка труда, при котором занятие желающих работать обеспечено в общественных масштабах. Такое состояние равновесия может сложиться на различных уровнях занятости.

Равновесие занятости, однако, может быть лишь относительным и переходным, то есть реализуется только как тенденция. Подвижность рабочей силы, неразрывно связанная с общественно-экономическим развитием, не противоречит требованию равновесия, а, наоборот, является одним из его условий. Общественно полезная подвижность рабочей силы имеет не только отрицательные, но и положительные стороны. Она является следствием и вместе с тем и условием развития.

Чтобы обеспечить такую подвижность, требуются резервные ресурсы. Однако в условиях полной занятости, осуществляющейся при социализме, таким «резервом» не может быть безработица. Автор указывает в статье, какие ресурсы могут быть резервными при планомерном использовании рабочей силы: более тесное согласование народного образования с требованиями общественно-экономического развития; двустороннее движение рабочей силы между народным хозяйством и домашними хозяйствами; взаимосвязь между сельским хозяйством и остальными отраслями экономики; планомерное формирование соотношений заработков; армия пожилых, достигших пенсионерного возраста; отклонение действительного рабочего времени от законного и, наконец, международное экономическое сотрудничество и интеграция.

В заключительной части статьи автор излагает факторы, под влиянием которых сложился высокий уровень занятости в социалистических странах. Он указывает на противоположные тенденции развития в занятости пожилых, молодых возрастных групп и женщин. Повышение уровня занятости населения связано прежде всего с ростом занятости женщин. В статье указываются условия и ограничения повышения уровня занятости.

Требования экономической рациональности являются по существу, тривиальными. Иной и во многом более сложный характер имеет оценка общественной рациональности, выдвигаемая, главным образом, в связи с повышением экономической активности женщин. Исходным пунктом при разрешении противоречий является признание того, что труд женщин в домашнем хозяйстве является общественно необходимым и полезным. На основании этого принципа следует рассматривать и проблемы уровня доходов и, главным образом, структуры доходов и их рассеяния, так как эти факторы тесно связаны с желанием или потребностью женщин поступать на работу. Рост занятости женщин до определенной границы — историческая тенденция, но если мы хотим, чтобы он происходил при как можно меньших противоречиях, следует увеличить действительную свободу выбора женщин между домашним хозяйством и общественно организованным трудом.

В заключение автор указывает на возможное противоречие между равновесием занятости и повышением производительности труда. Он подчеркивает, что полная занятость, а также повышение уровня занятости не должно быть самоцелью: состояние равновесия должно обеспечиваться посредством планомерного воздействия на спрос и предложение рабочей силы таким образом, чтобы устранение противоречий одновременно служило ускорению экономического роста и общественному развитию.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (2), pp. 181—195 (1969)

Z. ROMÁN

PATTERN OF THE HUNGARIAN INDUSTRY

Within the framework of the analytical work to prepare the long-term plans a study on the pattern of industry has been drawn up in the Institute for Industrial Economics of the Hungarian Academy of Sciences. The work itself was commissioned by the National Planning Office and several members of its staff have contributed to the study.* This article summarizes the major results of this research project.

In recent years several studies have dealt with the structure of Hungarian industry by branches. Following these, and keeping in view the requirements of long-term planning, efforts were made to find answers to the following questions:

a) What are the characteristics of the actual pattern of the Hungarian industry?

b) To what factors can these characteristics be attributed?

c) What were the features characteristic of the *changes* in pattern?

d) What conclusions can be drawn for long-term planning from the pattern of industry?

In the analysis of the industrial structure we started from the breakdown into 20 industrial groups usually employed in Hungarian statistical practice. In some cases also the internal pattern of a group was examined but more often than not major groups, or blocs were formed from the groups of industry. Of course, as against a more detailed breakdown, such procedure will show smaller dissimilarities between countries, and a greater stability over time of the industrial structure by branches, Yet, it was inevitable to use this method because the comparability of international data swiftly diminishes with a more detailed breakdown. The analytical studies of the individual branches prepared parallely also treat the internal structure of these major groups and thus the results of the two kinds of investigation can mutually complement each other. But the analysis of the data of the groups allows in itself certain conclusions to be drawn.

* In addition to the research workers of the Institute for Industrial Economics of the Hungarian Academy of Sciences, L. Gerencsér, F. Kiss, Mrs. L. Koczka, Mrs. J. Krepuska, A. Szabó and Mrs. Gy. Zádor participated in processing the numerical material serving as a basis of this study, while E. Iván, A. Kocsis, Z. Marcsányi, E. Pócs, M. Simán and P. Szőnyi contributed to the analytical work. The study was published in full in No. 2 of the Institute's Information Bulletin.

The general concept underlying the investigation

The development of the national economy — or, to use an increasingly popular term, economic growth — has above all two characteristics: the *growth rate* expressing the rapidity of change in the level and the *changes in structure* accompanying growth. Economic growth involves *different growth rates* of the various parameters of the economy and, as a result, growth is a series of uninterrupted *changes in conditions* which take place together with continuous *changes in structure.*

Recent investigations have shown that there is a fairly close relationship

1. between the *growth rates of the various* parameters,
2. between the *structure* investigated in *different* cross-sections,
3. between the *level and structures,* and, finally — and less unequivocally —
4. between the *level and the growth rate.*

The possibilities of research into these problems are rather limited because

— in general, there are few units (countries), that can be analysed,

— there are still fewer on which adequate data series would be available,

— even between the latter there are such characteristic differences (the size of the country, its geographical situation, historical conditions, etc.) that a generalization can be attempted only in respect of a very limited number of statements.

In spite of these difficulties a fairly sufficient number of general characteristics of economic growth could be established and verified on hand of statistical data. The relationships thus disclosed assert themselves, however, only stochastically with *great probability;* many deviations from them can be observed – and, mostly explained. It should be also emphasized that according to the experiences gained in the course of these investigations, the *interrelations describe the process of growth but determine the rate of growth only to a small extent;* the latter may vary considerably as shown by historical evidence. These general relationships can, therefore, serve only as a certain *initial basis* to draw up concretely the outlines of the further growth of some country. In this capacity, however, they may prove to be most useful. If a fairly general process of economic growth can be outlined, the countries of various development levels can be considered as being in different stages of the same process. On hand of the example of more advanced countries those at a lower level of development may study several characteristics of the higher level, the way in which it can be reached (and the structure belonging to that level). However a whole series of other factors must also be considered, above all

a) the different endowments and initial situation of the individual countries,

b) the different social objectives of the countries,

c) the effects of the technological and economic progress taking place in the meantime.

As regards the latter factor, the point is that individual countries cover the road of development not in an abstract scheme of economic growth but in their own system of coordinates bound to calendar time. If the data available covered much more countries and it could be established with high probability *what* and *how* can be attained with certain endowments, initial situations and objectives, the *actual* development would still take another course because the countries which are far from each other as regards the growth process but still running parallel in time, are affected by many identical impulses. In view of all these, the following method may be considered, as one of the approximations of long-term planning.

1. Let us establish the *actual level of development and the actual structure;* let us try to find an answer to the deviations from the general pattern in respect of the interrelations between the indicators of development level and pattern.

2. Let us set the level and *growth rate* desired — in several alternatives.*

3. Let us find the *structures belonging to these* levels in general and the structures that can be coupled with a) our own endowments, b) social objectives and c) the expected general technical and economic progress.**

4. Let us analyse the *ways* and the *means* leading to the higher level and the corresponding structure under the most favourable conditions.

This analysis wishes to contribute to the performance of the first task mentioned. It follows that attention will be paid mainly not to *how* the present situation has been attained, but to an analysis of the *characteristic features* of this situation and to the *expectable changes* in the next stage of economic growth. As a matter of fact, the planning concept outlined requires primarily this type of analysis.

The basic model of the investigation

The "state" of the economy can be described in the first place by the level and structure of its main parameters (both in analysis and in planning). If it is the situation of *industry* we wanted to describe, we will have to examine

— the level of production, productivity, technology, etc.;

* Since the labour force to be employed can be planned with relatively great certainty, the growth rate of production will depend mainly on the *rise in productivity* envisaged. This is, therefore, one of the crucial problems in long-term planning.

** The interrelation between level and pattern is not equally close in respect of every characteristic of the structure. Optimization of structure is possible where, and to the extent to which, the interrelation is less pre-determined.

— the place of industry in the pattern of the economy as a whole, and, finally,

— the industry's own internal structure.

One of the most important characteristics of this structure is the *pattern* by branches.*

The pattern of industry by branches can be approached from two aspects, namely from the demand and the supply aspect.

Starting from the side of *demand*, the demand for industrial products (and certain of its elements) is analysed; then, an answer is sought to the question, what part of demand can be met by domestic production and what part by imports. Finally, the secondary effect of demand for industrial products is examined, the demand it will generate for the factors of production, labour, fixed and circulating assets, imports, etc.

We may also start from the *supply* side, from the factors of production available, i.e. labour, productive capacities, import possibilities, etc., and determine supply from these, comparing it then with *actual* demand.

Both approaches are appropriate and in the final analysis a synthesis of the two must be brought about with the aid of the balance system. In both types of approach the link between production and its factors is constituted by the specific indicators (of productivity, capital intensity, import quota, etc.).

Since *in the long-term* the factors of demand are predominant, in long-term planning, — and the present analysis intended to provide a foundation for long-term planning — it will be expedient to start from the demand side. (From this it follows that primarily the pattern of production will be examined.)

The pattern of production by branches can be examined with the aid of various indicators. Our investigation has been founded mainly on a model based on indicators of *gross value of production*. Though — as is well known — these indicators are seriously influenced by the differing degree of integration and cooperation between enterprises and the ensueing double-counting, total demand (final and intermediate) can be best related to this notion of production. The general model of the analysis has been based on the following balance-equation:

$$P + I = F + B + K + E + T \tag{1}$$

where:

P = gross output (production value)
I = import
F = consumption

* By branches we mean groups of enterprises formed on the basis of definite criteria, of which the character and destination of the products are the most important.

B = gross investment
K = changes in stocks
E = exports
T = intermediate (productive demand)

With a suitable decomposition of imports, from (1) the equation of the gross output can be derived:

$$P = (F + B + K + E - I_V) + T - I_T \tag{2}$$

where

I_T = imports for final demand
I_V = imports for intermediate (productive) demand.

The expression in brackets of equation (2) gives the value of final demand to be covered by (domestic) production. The intermediate (productive) inputs needed may be worked out with the aid of the inverse matrix of the input-output table. From the basic equation (1) it follows that for such type of examinations primarily such input-output tables are to be used, which show the total demand for products by branches, including both domestic production and imports.

From (2) the following explanatory equation of the pattern of gross output may be derived:

$$P_i = a_1F_i + a_2B_i + a_3K_i + a_4E_i - a_5I_{Vi} + a_6T_i - a_7I_{Ti} \tag{3}$$

where

P_i = vector of the coefficients describing the pattern of gross output (percentage distribution)
F_i = vector of the coefficients describing the pattern of consumption (percentage distribution)
B_i, K_i, E_i, I_{Vi}, T_i, I_{Ti} are vectors of similar meaning
a_1 = ratio of total consumption to the value of gross output,
a_2 = ratio of total gross investments to the value of gross output,
a_3, a_4, a_5, a_6, a_7 are similar coefficients, providing the weights of the structural coefficients.

The deviations of the patterns of two countries or two periods can be quantified with the aid of equation (3) indicating how much of the differences may be attributed to the individual components (the pattern of consumption, investments, changes in stock, exports, imports, etc.) and their weights (ratios) in the value of gross output.

Our model may serve also planning purposes, considering, among others, that from the above factors

— the pattern of consumption depends to a great extent on the level of per capita national income;

— the pattern of investment by industrial products is mostly similar (with engineering products dominating);

— the pattern of changes in inventories may be very different, depending on a multitude of factors (and difficult to plan, except stockpiling for reserves).

— the patterns of exports and imports may strongly differ; these are the easiest to shape and constitute, at the same time, one of the most difficult planning problems;

— the pattern of productive, intermediate consumption depends partly on the pattern of final uses (consumption, investments, exports) and partly on the technologies and the level of per unit inputs — that is, on the technical level — and can be modified from the latter point of view, but is, again, difficult to plan.

As regards the weights of the individual components, this will determine the final effect of the differences in the pattern of the individual elements on the pattern of *production*. As to these relative weights, there can be considerable differences (i) in the weights is of exports and imports (their weight is generally greater in smaller and more advanced countries) and (ii) in the proportions of intermediate uses (depending partly on per unit inputs but to a great extent also on differences in organization and doublecounting) but, of course, also the proportions of consumption, investment and changes in inventories may be different.

Characteristics of the actual pattern of Hungarian industry

Earlier investigations of the Central Statistical Office* compared the pattern of Hungarian industrial production by branches with the CMEA countries on the basis of indicators of gross value of production, and with the developed capitalist as well as the developing countries on that of value added. *The comparison with the CMEA countries showed* (after roughly eliminating the differences between national price systems) that the share of *metallurgy and engineering* corresponds to the average in comparison to these countries, while the share of the *food and textile industries* is higher than average and that of the *chemical and the fuel industries* lower.

It should be noted that a study prepared by the United Nations, which will be dealt with in detail later on,** found that it is a common characteristic

* See: A magyar ipar nemzetközi összehasonlításban. (Hungarian industry: an international comparison) Statistical Periodical Publications, 1967. No. 10. — Z. Román: The Pattern of Hungarian Industry, Hungarian Survey, Budapest, 1967. pp. 220—241.; also in Acta Oeconomica. 1968. Vol. 3. No. 1. pp. 55—76.

** A Study of Industrial Growth, UN, 1963. p. 55.

of all seven socialist countries covered in the survey (the Soviet Union was not included) that the share of metallurgy and engineering is relatively high while the weight of the textile and the food industries is relatively low.

The comparisons carried out with the developed capitalist and the developing countries have led to the conclusion that the pattern of Hungarian industry resembles the developed countries as regards the considerable weight of engineering, while with the relatively high share of the textile industry it stands nearer to the average pattern of the developing countries. The low share of the chemical and paper industries as well as the high share of metallurgy and especially coal mining are conspicuous. The weight of the food industry proved to be average.

These results have been checked first of all from the point of view how would the pattern of the Hungarian industry emerge if effects of the characteristics of the national price system were eliminated and examination of the pattern of industry by branches based on *dollar prices* instead of the domestic prices. For this purpose the input-output table for 1961 converted into dollars was used.* This table served as a basis also for the detailed analysis to be surveyed below. Considering that both net production value and value added are — also according to this analysis — *much too sensitive* to conversion into another price system, the indicators of gross value of production were compared with those of the five countries of the European Economic Community (Federal Republic of Germany, France, Italy, the Netherlands and Belgium) for which roughly comparable input-output tables were available (for 1959).

In Table 1, the pattern of the Hungarian industry is compared with that of these five Western European countries.

According to our investigations, with this high degree of aggregation the pattern will not change significantly over a short period (a few years) and thus the major statements applying to 1959 and 1961 can be considered as valid in the present situation, too.

There are many similarities in the pattern by branches of the individual countries (this follows mainly from the similarity of the pattern of consumption and technology), but also characteristic deviations may be observed. Some of the deviations can be explained by the differences in the *level* of *economic development* of the countries concerned, others on the basis of other features. The authors of the UN study have proven with mathematical-statistical methods, by computing multiple regression functions — from the data of 53 countries for 1953 and of 42 countries for 1958 — that the pattern of the *manufacturing industry* can be well explained by three factors, namely, per capita national income, population and the relative degree of industriali-

* With the cooperation of the Institute for Business Economics and organisation of the Ministry of Heavy Industry.

zation. With the aid of regression equations based on these variables, what is called the "normal" production level* and the "normal" pattern of industry can be established for any country on the basis of its national income and population figures. Of course, the "normal" or typical pattern is not a normative or a desired state; it only expresses the statistical interrelation between

Table 1

*Deviations of the pattern of Hungarian industry from that of five Western European countries**

Branch	Direction of deviations in industrial pattern from					
	FRG	France	Italy	Netherlands	Belgium	The average of the countries examined
Mining	+	+	++	++	=	+
Metallurgy	−	++	++	++	=	+
Engineering	+	−	+	+	++	+
Chemical industry	−	−−	−−	−−	−	−
the same, but oil refining excluded	−	−	−	−	−	−
Textile, leather and clothing industries	+	=	−	+	=	+
Food industry	+	=	−	−−	−	−

* Meaning of symbols: + : the share of the branch in question is greater in Hungary in comparison to the other one, ++ : much greater, − : smaller, −− : much smaller, = : roughly equal.

fact figures. It is only a tool of analysis, a basis of comparison, in relation to which the characteristics of the patterns in individual countries and their — often most justified — deviations from the "typical" can be examined.**

The UN-study mentioned contains also calculations about Hungary, for the year 1957, but based on the official exchange rates. Therefore, the calculation has been repeated with more realistic rates of exchange and for 1965. Thus, the two calculations not only refer to two different years but show also methodological differences. The results are presented in Table 2.***

The three analyses mentioned, the earlier one of the Hungarian Central Statistical Office (A), the comparison with the five Western European coun-

* The ratio of "normal" to actual value added by manufacturing gives the relative degree of industrialization, the third variable of the equations determining structure.

** The partial elasticity coefficients of the equations have an independent meaning: they express the percentage change in the value added of some branch per one per cent change in the value of the corresponding variable (in per capita national income, in population and in the relative degree of industrialization).

*** The indicators of the engineering and the food industries are particularly sensitive to the price system if based on value added, therefore, lower and upper limits are given.

Table 2

Deviations between the "normal" and the actual pattern in Hungarian manufacturing

Branches	Percentage deviation from the "normal" structure		Pattern in 1965 per cent	
	1957	1965	"normal"	"actual"
Metallurgy	+5.0	+5.5	6.5	12
Engineering	+7.8	−2.5+2.5	32.5	30—35
Building materials	+0.1	+1.0	5.0	6
Chemical industry	−2.3	−0.5	9.5	9
Wood processing	−2.1	−2.5	5.5	3
Paper industry	−2.8	−2.5	4.5	2
Textile, leather and clothing industries	+3.5	+2.0	13.0	15
Food industry	−11.8	−2.5—7.5	17.5	10—15
Other manufacturing	+2.6	−1.5	6.5	5

tries (B) and the above quoted regression analysis (C) were based on different methodological principles. It was, nevertheless, attempted to compare their results. According to these investigations, the shares of the major industrial branches deviated from the average, "normal" pattern as follows:*

Table 3

*The direction of deviations between the share of the major branches in Hungarian industry and the "normal" pattern**

Branch	According to analysis		
	A	B	C
Mining	+	+	·
Metallurgy	+	+	+
Engineering	+	+	=
Chemical industry	−	−	=
Textil, leather and clothing industries	+	(+)	+
Food industry	=	−	−

* For the explanation of symbols see Table 1.

It is characteristic that the results of the various analyses are largely identical, without any open contradiction:

— the share of mining (coal mining), metallurgy and — though less

* The analysis under (C), referred to manufacturing only and, thus, yielded no answer in respect of mining.

unequivocally — engineering, and the textile, leather and clothing industries is relatively high;

— the share of the chemical (paper) industry and the food industries is relatively low in Hungary.*

Explanation of the characteristics of the Hungarian industry

For an explanation of the present structure of Hungarian industry as characterized above, we may start from several aspects. Instead of the usual historical explanation, relying on the model outlined above and on the comparison with the five Western European countries, we shall try to deduce the pattern of production *from the patterns of demand and imports.*

The results of these comparisons are presented in brief summary form in Table 4 (using the earlier symbols).

Table 4

Deviations of the Hungarian pattern of demand for industrial products (and of imports) from that in five Western European countries

Direction of deviation of the average pattern of the five countries from the pattern of	Mining	Metallurgy	Engineering	Chemical industry	Textile, leather, clothing industries	Food industry
consumption	+	−	−	−	−	++
gross accumulation*	+	+	−−	+	+	+
exports	−	−	++	−−	−	+
imports	−−	+	++	+	−	−
intermediate uses	=	+	−	−−	++	+

* Gross investment and inventory changes.

For lack of space, the data cannot be analysed here in detail, but let us outline some major interrelations. For example, the pattern of consumption in Hungary is characterized by the following features.

— The share of mining products is high, while that of electric energy is low,**

* It should be stressed again that the definitions "high" or "low" do not represent any value judgement; the causes, and purposefulness of the deviations must be separately examined. There is a certain probability that this country, too, is approaching the "normal" pattern, but the objective is not to attain this goal at the earliest possible date but to develop a structure conforming most to the country's actual endowments.

** The high share of mining products in consumption may be traced back mainly to the relatively high household consumption of coal. The low share of electric energy may be partly explained by the same fact. Considering the two combined, this will amount to 5.2 per cent in Hungary as against the average of 4.3 per cent in the capitalist countries (with 3.0 and 6.6 per cent as upper and lower limits).

— the share of engineering,* chemical** as well as textile, leather and clothing articles is relatively low, and, finally,

— the share of foodstuffs in consumption is unequivocally high (and will be even higher with the direct consumption of agricultural products added).

The major part of the characteristics mentioned may be explained by the fact that the Hungarian level of living is much lower than that in the five countries examined (or, in at least four of them). From all that, quite definite conclusions may be drawn regarding the expectable changes in the pattern of consumption which the rise in the level of living may bring about in the next years.

As regards the *investment* pattern by commodities, there is no major deviation between the countries, with the engineering industry dominating, but there is a substantial difference in the structure of *changes (rises) in inventories* and, in addition, in the year covered by the survey, the rise in stocks represented a substantial amount in the Hungarian industry. It would be difficult to evaluate this factor independently, but in order to complete the picture, it had been taken into account. In the above table gross accumulation includes, in addition to gross investments, also the changes in inventories; the differences are due mostly to the latter.

Comparing the pattern of Hungarian *foreign trade* with that of the countries under investigation, it will be found that the share of engineering products was high and that of the mining, textile, leather and clothing articles low. The *balance* of external trade tends to increase the share of the domestic mining and food industry, decreasing that of metallurgy and the chemical industry.

As regards the analysis of the *structure of intermediate uses*, it must be noted that the possible differences in the integration and cooperation of enterprises, as well as the problems of the comparability of the input-output tables used as a basis of comparison, affect this item to the greatest extent. According to the data made approximately comparable, in the Hungarian pattern of productive uses the share of two industries is outstanding as against the five Western European countries: that of the Hungarian chemical industry is *lower* than the lowest value in the five countries and that of the textile, leather and clothing industries is *higher* than the highest one there. It is probable that the high value of the share of the textile industry may be attributed — in addition to the differences in double-counting which were mostly eliminated — to the smaller share of highly integrated vertical enterprises, whereas

* The lower share in the consumption of engineering products may be partly explained by the lower number of cars.

** In the capitalist countries concerned, a considerable part of chemical products consumed consists of oil derivatives. Without this category, the share of the chemical industry in Hungarian consumption of industrial products is above the average.

the low figure for the chemical industry really reflects the low level of the use of chemicals.

The share of the Hungarian engineering industry is around the average; in the intermediate uses of industrial products that of metallurgy is, however, above it. In the latter, the high share of engineering and the high per unit consumption of metallurgical products have a role. The share of the food industry is also above the average but this item is, for technical reasons, least comparable of all.

The individual elements of demand and the pattern of imports influence the structure of gross output to a smaller or greater extent depending on their weight in the total value of gross industrial output.

The share of consumption in total output is well below average in this country, whereas that of gross accumulation and intermediate uses is above the average. The share of imports and exports is around the average, due to the fact that it is *much lower* than in the two "small" countries (the Netherlands and Belgium) and higher than in the three "big" ones.

In Table 5 an attempt is made to show the factors primarily affecting the characteristics of the Hungarian production pattern.*

Table 5

Effect of the pattern of demand (and imports) on the pattern by branches of Hungarian industry

Effect on the pattern by branches of industry of	Mining	Metallurgy	Engineering	Chemical industry	Textile, leather, clothing industries	Food industry
pattern of consumption	+	0	−	−	−	+
pattern of gross accumulation	0	+	−	0	0	0
pattern of exports	0	−	+	−	−	+
pattern of imports	+	0	−	−	+	+
pattern of productive consumption	0	+	+	−	+	+
ratio of consumption to gross accumulation	0	+	+	−	−	−
ratio of final consumption to productive consumption	+	+	−	+	0	−
Direction of the resultant of the effects	+	+	+	−	+	−

* This is, in fact, the transposed version of Table 4. From the ratios only the two most important ones are quoted. The + sign means an effect increasing the ratio of the branch in question, the — sign means a decreasing effect, while 0 indicates that the factor had no significant effect.

Some ideas concerning the planning of the pattern by branches*

Based on the observation of development in several countries it can be stated that — at least *as regards major groups of branches* — on a higher development level and with a slower growth rate also the rapidity of structural changes is generally decreasing. It is thus probable that in the next 15 years the structural changes in Hungarian industry will be smaller than in the preceding decade and a half.

— Similarly, on the basis of investigations covering a large number of countries, fairly general interrelations can be established between the pattern of industry and the development level of the economy. From this fact, conclusions may be drawn for the expectable directions of changes in structure in the course of development towards a higher level — provided the general tendencies will prevail.

— By comparing the present structure of this country with the industrial pattern of various other countries — among them mainly with those of similar size and development level — it can be established, *assuming* the assertion of the general tendencies, the share of which branch is likely to grow or diminish. Accordingly, from among the major branches, the share of mining and metallurgy as well as of the textile, leather and clothing industries is likely to diminish, while that of engineering, the chemical industry and the food industry will probably somewhat increase.

— Of course, in the individual countries also individual characteristics will assert themselves. Both the deceleration of changes in structure and the general tendencies of the changes assert themselves only stochastically, as a probability. It requires further separate investigation whether it is not justified to expect or even *deliberately promote* the appearance of other tendencies in the Hungarian industry.

— The deviations from the general tendencies mentioned should be analysed mainly from two points of view: from that of the production facilities, the comparative advantages prevailing and to be expected in the long term, and from the aspect of the individual elements of demand and (beside exports) of imports. (It should be mentioned that the share of a sector in the overall pattern may diminish even with a considerable growth in the sector's production, if its growth rate is lower than the growth rate of industry as a whole.)

— The most reliable method of planning the pattern by branches seems to be, instead of planning directly the pattern of production, to plan first separately the structure of the individual elements determining the latter and establish then the expected pattern of production from these. The pattern

* No mention has been made here of the results of our investigations concerning the changes in the pattern by branches of the interrelations between structure and efficiency, but some of the following statements rely on these.

of consumption can be fairly reliably planned on the basis of per capita national income, and planning the pattern of investment by industrial products (which changes but little) will not present difficulties either. The expectable pattern of the changes in inventories can be planned only in its outlines (except for reserves) because there are no exact initial data available. We will hardly be wrong in the assumption that the planning of the structure of intermediate uses and of exports and imports will cause the greatest trouble. The reason is, that here are the greatest possibilities for substitution and for an active shaping of the pattern.

— Most certainly, it is these two fields which primarily require further research. The structure of intermediate uses depends on two factors: the pattern of *final* uses and the *per unit* uses of materials (the technological coefficients expressing also the level of technology). With the aid of methods relying on input-output tables, the intermediate uses belonging to given *final* uses can be worked out — if we know the technological coefficient — with a simple algorithm; attention should, therefore, be paid mainly to the technological coefficients, to the planning of their trend. There are several known methods for optimizing the pattern of exports and imports. What requires investigation is first of all, *how these can be practically used in the long-term, for a 15-year period.* Here the methodologies of analysis and planning most sharply diverge; as a matter of fact, the uncertainty of data projected to 15 years requires the intensive investigation of several problems which an export analysis can afford to neglect.

СПЕЦИФИЧЕСКИЕ ЧЕРТЫ ОТРАСЛЕВОЙ СТРУКТУРЫ ВЕНГЕРСКОЙ ПРОМЫШЛЕННОСТИ

З. РОМАН

В статье обобщаются основные результаты исследований, проведенных в рамках обширных анализов, направленных на совершенствование методов перспективного планирования. Изложив некоторые методологические вопросы, связанные с перспективным планированием и изучением отраслевой структуры, автор в статье анализирует современную отраслевую структуру венгерской промышленности — а) на основании результатов прежних статистических анализов, б) с использованием регрессионных уравнений одного из исследований ООН и в) путем сопоставления пересчитанных в валютные цены венгерских показателей с показателями пяти западноевропейских стран (ФРГ, Франции, Италии, Голландии, Бельгии). Согласно приблизительно совпадающим результатам трех анализов, в венгерской промышленности относительно высоким является удельный вес горнодобывающей промышленности, металлургии и — менее однозначно — машиностроения, а также текстильной, кожевенной и швейной промышленностей; относительно низким — удельный вес химической (бумажной) и пищевкусовой промышленностей.

В дальнейшем автор пытается объяснить эти специфические черты структуры венгерской промышленности в сопоставлении с пятью упомянутыми странами. При определении полной производственной структуры промышленности он исходит из структуры спроса и импорта, анализируя и выявляя роль следующих факторов: потребление, валовые капиталовложения и изменение запасов, структура экспорта, импорта, производственного потребления, а также удельный вес этих элементов (по отношению к общему объему продукции). Посредством такого метода автор объясняет и причины вышеупомянутого относительно высокого или низкого удельного веса отдельных отраслей.

В конце статьи автор делает некоторые заключения относительно планирования отраслевой структуры. Он подчеркивает, что определенные выводы вытекают и из общих взаимозависимостей между отраслевой структурой и степенью развития хозяйства, однако, наряду с этим, отдельных исследований требует изучение национальной специфики и ожидаемых относительных выгод. Отраслевую структуру производства — аналогично вышеупомянутому методу — целесообразно планировать аналитически, исходя из структуры отдельных элементов потребления и импорта. Активное преобразование структуры возможно в первую очередь в отношении экспорта и импорта, а также производственного потребления: разработка метода их планирования в наибольшей мере требует дальнейших исследований.

REVIEWS

F. GÖNCZÖL

THE GENERAL ASSEMBLY OF THE HUNGARIAN ECONOMIC ASSOCIATION

The Hungarian Economic Association held its regular General Assembly between 24th—26th of October, 1968, in the ceremonial hall of the Hungarian Academy of Sciences. The General Assembly was opened by *dr. József Bognár*, Associate Member of the Academy, Vice-President of the Hungarian Economic Association — *dr. Imre Vajda*, President, being absent owing to illness. The report of the Presidium on the activity of the Association was held by the First Deputy of the Minister of Finances, *dr. Károly Garamvölgyi*, Secretary General of the Association. The account analyzed the role of the Association in the preparation of the economic reform. The discussions carried on in the framework of the Association about the directives of the reform of economic control and management and about the economic regulators gave several valuable impulses to the work of preparation. They have efficiently helped to adapt the regulators, to recognize correctly the impulses given by the new economic surroundings and to form the ways of solutions.

The 9 Budapest (branch and functional) sections of the Association and its 7 regional groups have organized in the last years 140—150 meetings on annual average. They dealt with the topical economic questions extensively and profoundly. Subjects of discussion were, for instance: short- and long-range planning of the national economy, regional planning and development and the role of the control and allocation of materials in the new economic mechanism, as well. Opinions were exchanged about several current questions of the domestic and foreign economic development, about the manpower situation of the national economy and the problems of employment and about problems connected with the activity of the Council for Mutual Economic Assistance. The most successful programs were those dealing with the internal economic and industrial administrative problems of the units of production, often on the basis of studies prepared for this particular purpose.

Several programs discussed the role and significance of market research in the new economic mechanism, the system of financing accumulation, the connection between enterprises and the banks.

The establishment of the internal division, the creation of specialized groups, work groups and sections (e.g. Section of the History of Statistics, of Regional Statistics, of International Statistics, a Catering and Tourist Special Group, a Section of Co-operatives etc.) meant a development of the organizational framework of the Association. These forms of activity have lots of advantages. The establishment and activity of the provincial groups of the Association is a big step towards the development of collective work of the economists living in the countryside. Today more than a half of the approximately 1800

members of the Association belong to the regional organizations. The proportion of economists working in enterprises is more advantageous there (53%) than in the average of the country (42%). The role of the regional groups becomes more and more active in the social life of the economists as well. The controlling organs require their collaboration to a growing degree in the solution of economic problems, in uniting the economists, in the utilization of their professional knowledge and experiences.

About 90 enterprises are members of the Association as legal entities. This connection produced a fruitful effect on the work of the Association. A real cooperation is being developed, in the framework of which the Association engages in the solution of economic and business problems of the enterprises.

The Association possesses significant international connections though these still lag behind the requirements and possibilities. The Hungarian economists have taken part more and more frequently at the conferences organized abroad by the International Economic Association, the International Institute of Public Finances, the Regional Science Association (International) and their contributions were generally appreciated. The connections with the economic societies of the socialist countries have taken an institutional form and developed into a cooperation agreement. The agreements are comprehensive ones and secure a sound and extensive basis for cooperation. In 1967 the Association established an independent press organ, a quarterly periodical with the title Gazdaság (Economy). Articles of high standard discuss the economic and political questions emergingin the system of the new economic mechanism and the journal publishes also reports on the work carried on in the organizations of the Association. The regional branches participate with a growing intensity in the work of the economic columns of the local newspapers.

The activity of the Association is built basically on voluntary work. For their work the most active members receive proper moral appreciation, which was expressed in several forms during the General Assembly. For their outstanding work rendered to the propagation of economics, to the organization of the Association and to the realization of its targets 4 economists were awarded Government distinctions, 7 of our colleagues received the Economist Prize (Béla Csikós-Nagy, Ferenc Erdei, Ottó Gadó, Károly Garamvölgyi, Ferenc Gönczöl, Imre Vajda, Jenő Wilcsek) and 21 persons were awarded the István Széchenyi Medal.

The General Assembly approved the modification of the articles of the Association. The articles of the society decentralize the scopes of authorities and rules on several new activities.

The program of the Association will be extended to the questions of development of the system of control and management, to the study and solution of the economic problems appearing on enterprise level. The General Assembly elected a Committee of 72 members and an Auditing Commission of 5 members. On its first session the Committee elected the Presidium of the Association, the President of the Presidium of the Association and the President of the Auditing Commission. President: *dr. Imre Vajda*, Vice-Presidents: *dr. József Bognár*, *dr. Béla Csikós-Nagy*, *István Friss*, *dr. Kálmán Kádas*.

Secretary General: *Károly Garamvölgyi.*
National Secretary: *dr. Ferenc Gönczöl.*
Budapest Secretary: *dr. László Lengyel.*

The Scientific Session

The opening lecture of the Scientific Session was delivered by First Deputy Prime Minister *dr. Mátyás Timár*, with the title: "Conditions of economic growth in the new system of control and management". The lecturer, analyzing the expected development of the first year of the reform, stressed that the introduction was smooth, development was unbroken and quicker than planned. He outlined the changes to be presumably effected in 1969, emphasizing that they do not affect the basic principles of the reform.

The contribution by *dr. István Hetényi*, Vice-President of the National Planning Office outlined the situation and problems of long-term economic development and planning. (See the full text on p. 155 of this volume.)

In the subsequent sectional session with professor *dr. Kálmán Kádas* in the chair — debating the topic of the long-range planning of economic growth — 12 comments were made. The speakers advised to take into consideration the decision-sensibility of the development variants from different standpoints. The importance of regional problems in long-range planning was emphasized. Knowledge of the development forecasts of the world economy was deemed necessary. The importance of considering the human factor, the social behaviour was also stressed.

The policy dealing with living standards was on the agenda of the second section. The opening lecture was delivered by the First Deputy President of the Central Statistical Office, *István Huszár*. (The article prepared on the basis of his lecture was published in the first 1969 issue of the Acta Oeconomica.) Jt was followed by Mrs. *Aladár Mód*'s co-lecture with the title: "Formation of the living standards by the social strata" and by that of *J. Timár* with the title: "Level of living policy, employment policy". The work of the sectional session was directed by *István Friss*. In the course of the discussion it was emphasized, among others, that the incentive effect of the wages on the improvement of work performance can make its way only if the influencing role of demographic factors on income distribution can be reduced. The limitations on the freedom of decisions, its expansion in a longer period and in case of an acceleration of the rate of development were raised. The discussion dealt with the actual proportions between distribution according to work and the social (free) allocations, with a note that the share of the incomes in money must be increased in future maintaining, however, the basic sanitary and cultural allocations, possibly improving also their standards.

In the third sectional session the First Deputy of the Minister of Foreign Trade, *Jenő Baczoni* was the lecturer on the topic: "International Division of Labour, Foreign Trade", and *J. Szita* was co-lecturer. In the session *J. Bognár*, associate member of the Academy was in the chair. The lecturer started from the statement that the dynamic development of world trade is an unequivocal sign of a rapidly deepening and expanding international division of labour. He examined the low proportion of the socialist countries in world trade. Further he dealt with the main features of the world economy and the world market and then with the question how the general world-economic tendencies are reflected in the Hungarian national economy and what main tasks we are faced in the field of participating in the international division of labour. One of the important characteristic features of the world-economic processes in the period after World War II is — the lecturer emphasized — a close interweaving of

political and economic factors. The world market was split in two, the notion of "East-West trade" was born; then, as a result of a historical development, the category of the "third world" was formed.

In this latter field, showing a colourful picture both politically and economically, the competition between the socialist and capitalist systems has evolved with great force. The equalization of power relations between the two systems in the second half of the '50ies forced the USA and her allies to accept, as a status quo, the principles of peaceful coexistence and peaceful economic competition. The United Nations Organization recognized the ever closer interweaving of political, economic and technical development and a whole range of organizations and resources were put into operation for promoting development of world trade and the international division of labour. It was a significant political success that under the auspices of the UNO the first World Trade Conference was convened in 1964. It was the conception of the socialist countries that a universal world trade organization was to be established. A healthy development can be secured only if the trade connections among all regions and countries, respectively, are led by mutual advantages and the elimination of discriminations of any kind. It is a considerable result that a constant, stable economic world organization has been established which is a universal one — regarding its objectives — and which has accepted a whole series of new principles to regulate world trade.

Further the lecturer surveyed the *effects of the most important changes in the productive forces* on the world trade. He stressed that with the acceleration of technological progress the role of the time factor has considerably grown in economic development. Conditions of a wide-range application of the latest technical achievements raise such requirements that at present only the Soviet Union and the United States can utilize and improve the total spectrum of these achievements. The small and middle-sized developed countries find themselves more and more faced with the contradiction that, on the one hand, the number of products competitively produced by them is rapidly decreasing while, on the other hand, the assortment of the products required by the population is more and more widening. Development of the forces of production, the results of the scientific-technological revolution have inevitably led to the birth of integrations and to the strengthening of efforts at regional economic co-operation.

Within the three large fields of the world trade further groupings have also been formed. As regards competition, several new phenomena can be found, for instance, long-term credits have come into the forefront in exporting investment goods; in the whole world the directive, incentive and braking effect of the states has strengthened regarding the external economic connections.

In the lecturer's opinion the world economic tendencies and problems outlined should be reckoned with in the long perspective as well. Extension of cooperation is in the interest of both the socialist and the capitalist countries.

Also in the countries belonging to the CMEA the view is prevalent that the economic potential of a country depends on the modern structure of production, on the up-to-dateness of the products and on the efficiency of production. The crucial field of economic competition between the two systems will be the efficiency of production and in its interest, a rapid adaptation of the achievements of scientific-technological progress.

Further the lecturer outlined Hungary's participation in the international division of labour. Significance of foreign trade is great, taking into consideration the general level of development: 1% growth of national income was accompanied by 1.84% growth of foreign trade turnover in the years between 1960—67; the value of the exports amounted to 25—30% of national income in the middle of the '60-ies.

The scope of foreign trade activity may be characterized by stating that Hungary carries on foreign trade with some 100 countries and within this figure the connections with about 60 countries are regulated by inter-state contracts.

Development since the world war has been dynamic, the economic structure, as a whole, has accommodated itself to the development of the world market. The most significant change in the pattern of foreign trade is the growing proportion of the exports of machinery. Analyzing the factors hindering development, the lecture dealt with the insufficiencies of the old system of economic control and management owing to which it did not convey the effects of the world market efficiently enough towards production.

The lecture also outlined the major characteristic features of the reform and the results and experiences of the first 9 months. As a whole they are favourable, yet a greater incentive is required for the development of export potential.

The next topic *J. Baczoni* dealt with was Hungary's economic relations with the socialist countries. These play an important role in the development of the country and are of determinative significance in her international economic relations. In the last years the shaping of new, more efficient forms of solutions has been going on, the purpose of which is the proper stimulation of the further development. (Such as: the International Bank for Economic Cooperation and under its supervision the socialist multilateral clearing system). The lecturer mentioned several cooperation agreements of great significance.

Analyzing the foreign trade turnover with the developed capitalist countries he stated that on this field a rapid growth is required — apart from the policy of peaceful coexistence — also by our direct economic interests. In 1960—67 imports increased almost twofold, more rapidly than exports, mainly owing to the imports of machinery, which rose at the annual rate of almost 16 per cent. First of all the agricultural and food products served to expand exports, their proportion amounted to about half the exports to the developed capitalist countries. The lecturer pointed out that raising the proportion of machinery exports was the crucial question of further development.

Then he dealt with the particular ways foreign trade can contribute to the development of the export-potential and to competitiveness. He regards an important task the improvement of the market conditions, the many-sided application of marketing methods and cooperation. After 1963, a more favourable political climate having been brought about in the capitalist countries, the possibilities of cooperation with enterprises in the socialist countries have been treated more favourably and with growing interest. Up to now only moderate results have been reached. Under the circumstances of the new economic mechanism cooperation activities also receive an appropriate incentive.

The lecturer dealt with the question of the *economic relations with the developing countries.* Turnover of foreign trade in this relation has been very dynamic. The last years have been the period of establishing connections. A further development of diversified connections is in accordance with the politi-

cal, economico-political and concrete economic interests of Hungary. The developing countries generally appreciate the particular elements which render their trade with the socialist countries advantageous. (E.g. assuring continuous selling possibilities, the work of experts, education of specialists, etc.)

In the final part of his lecture J. Baczoni dealt with the tasks the solution of which increases the efficiency of participation in the international division of labour. For instance, a further development of market organization, the increase of regional economic cooperation with the socialist countries, also in the framework of the GATT, an increase of the activity in the international economic organizations, etc.

The contribution of *Dr. János Szita* outlining questions and Hungarian theories in connection with the work of the CMEA also created great interest.

Development of the CMEA must be turned towards new tendencies. It is obvious however, that the diverse internal economic mechanisms of the individual countries considerably influence the possibilities of foreign trade. The Hungarian mechanism already conveys the market impulses. Solutions must be created in the CMEA — the lecture emphasized — which start from the simultaneous existence of various mechanisms. The circumstance must be taken into consideration as well that the importance and role of foreign trade in the individual national economies is different. In the course of the lecture and the debate, too, there were references to the fact that several parallel, unnecessary capacities have been created in the socialist countries. In the international trade progress must be made under complicated circumstances; this is why well-considered measures and wide conceptions are needed.

In the fourth section of the scientific session *Dr. Béla Csikós-Nagy* delivered the introductory lecture with the title "The monetary system of the national economy". The section was held with *Mr. Andor László*, President of the National Bank in the chair.

In his introduction the lecturer expounded the price-discussion in Hungary. In its first stage the price-system was criticized for an inconsistent application of the input principle, the second one was directed against the official character of the price system and in our days a new stage of the price-discussion is coming to the light. In the first stage the role of prices in the mechanism was underestimated while in the second one it was overestimated. It is expedient to continue the price-discussion on new bases, fitted into the monetary system of the socialist economy. The problems treated were deduced by the lecturer from the requirements of improving the regulated market mechanism.

The complicated system of a modern economy requires an equally complicated system of measures of economic policy. Economic policy is necessarily not conform or selective. Every state applies direct regulators and this is done in a differentiated manner. The means of market regulation can be classified into three groups,

a) budget and financial policies,
b) means of price and wage policy, and
c) natural (physical) regulators.

The lecturer analyzed the possible ranking of economic regulators and the considerations to be applied. Béla Csikós-Nagy considers the indirect credit-political and budget regulators which affect the market and under their influence the prices are formed, to be of the greatest importance. Starting from the price-discussion in Hungary and from the development of the price system,

he examined the basic question under what conditions can a market mechanism secure a better solution than an official price regulation. Among these conditions he enumerated the autonomy of enterprises, the emergence of a buyers' market, a selective economic policy, the possibility of capital movements among enterprises, and convertibility of the currencies of the CMEA countries.

From the standpoint of the *selection principles* of economic policy he considers it expedient to make a difference between long-range development process and operative policy. He considers selectivity to be first of all a means of long-range economic policy.

In his lecture Béla Csikós-Nagy devoted large scope to movements of money and capital. In his opinion it is the monetary system of the national economy that must be placed into centre of the examination of the mechanism. He raised the necessity of creating a money- and capital-market but he excluded the establishment of a stock-market as the latter would be based upon the individual ownership of the means of production.

The question, namely, what standpoint should we take in connection with the market forms of money and capital movements which could be also put into operation when capital is socialized, was raised already earlier in the course of the discussions about the national one-bank system and the national credit monopoly. Then it was the opinion that only a strictly centralized bank and credit organization could secure the planned formation of money- and commodity-relations when applying indirect regulators. Therefore, the national one-bank system and credit monopoly has been preserved in the new system of the economic mechanism as well. The lecture expounded that the above outlined question is independent from the conditions of ownership, the standpoint to be taken depends only on how the connection between the plan and the market is interpreted, more precisely, under what conditions can the market regulations based on the national economic plans be considered as efficient. It is worth while to subject the credit monopoly once more to critical analysis.

The putting into operation of capital movements organized in the framework of the national bank system can be advantageous in many respects; therefore it is desirable to make the institutional framework of the national economy suitable for the movements of money and capital. According to B. Csikós-Nagy a bank system consisting of several banks could adjust itself more flexibly to the varied financing tasks and the financial political principles deduced from the plan could be served more efficiently by an issuing bank independent from the bank organization.

The next main part of the lecture was the currency mechanism. A proper valuation of the currency was perhaps the most debated question during the preparation of the new Hungarian economic mechanism. The introduction of the reform took place without a currency reform, the manipulated foreign exchange control has been preserved unchanged. Approximation of a rate of exchange was striven at by help of which the efficiency of foreign trade transactions could be properly examined. The industrially developed West-European capitalist countries established the convertibility of their currencies gradually after the Second World War and in the monetary system of the international division of labour. The national currencies of several West-European countries could become convertible without having a considerable gold reserve at their disposal. But there had to exist a "key-currency", which is a reserve currency from the point of view of the other countries. If the currency of a certain country is only

a trading currency, then it is a sufficient condition of convertibility to have a satisfactory foreign exchange producing potential in the national economy, while without this, even a gold reserve does not offer any solution. To achieve convertibility of currencies in the socialist countries could not come up against unsurmountable difficulties from the point of view of the economic real-processes. From the aspect of international liquidity it makes no difference that a country has a trading or a bound currency. According to the lecturer, the way to the convertibility of a currency leads through the system of the international division of labour. It is in this way that the socialist currency is connected with the currency mechanism of the CMEA.

If the national currency is not convertible, the rate of exchange becomes indifferent for trade. Besides trade, however, — for instance, in tourism — the national currencies get into a direct connection with each other. For these purposes the CMEA countries established a so-called "non-commercial" rate of exchange which reflects the purchasing parity of the national currencies. Further on the lecturer dealt with the cooperation mechanism of the CMEA. He outlined the historical antecedents of the topic, the change in ideas about the question. In the beginning studying of the economic cooperation system was going on in the framework of the discussions about the "own price-basis". Later on it became obvious that the crucial problem of the cooperation system is the market problem and, as such, it requires the solution of the currency problems. He expounded that the monetary system of the cooperation must be brought about in accordance with the requirements of plan coordination.

In this connection multilaterality deserves attention which makes it desirable for the socialist countries to open — with certain restrictions — their internal markets for each other. For this purpose the role in foreign trade of the economic units must be increased, the enterprises should have the right to bargain. Thus the condition of multilaterality securing economic efficiency is a flexible price mechanism. Multilaterality makes the way free for the clearing-currency which will serve now not only as a settling unit but as an actual means of payment. According to the lecturer, the own monetary system of the CMEA must be established on the one hand, and it must be connected with other monetary systems of the world economy, on the other hand. All these require the placing of the currency mechanism on new bases. From the point of view of the socialist countries a gradual establishment of the convertibility of the clearing currency logically leads to the convertibility of the national currencies.

In his contribution to the debate *Dr. O. Gadó* dealt with two major questions: with the establishment of the capital market and with achieving the convertibility of currencies. He agreed with B. Csikós-Nagy's theses on the necessity of establishing the capital market, but as regards the methods he took a stand rather for the mutual investments of the enterprises which are in producing and trading connections with each other. He considered it necessary to unite the crediting of fixed and circulating assets, at the same time he thought it expedient to separate the functions of the issuing bank and the credit bank. He also considered trade credit untimely as under the present circumstances it would further strengthen the otherwise favourable position of the producers. The debate was concentrated upon the questions of the role and place of regulators, the possible organizational forms of the capital market, the bank system and convertibility.

The speakers considered as most effective the common enterprises, a solution similar to the joint stock-form. They agreed upon the organizational delimitation of the functions of the issuing bank and the credit bank.

The scientific session, organized by the Hungarian Economic Association discussed questions the clarification of which is a condition of perfecting the system of economic control and management. One part of the questions is still in the stage of "research and development" and the wide-range discussions provided a great stimulus to them.

The material of the session will be published in a book.*

T. Forgács

POST-GRADUATE TRAINING OF ECONOMISTS IN HUNGARY**

On the factors determining the necessity of further training

Organized refresher courses for those holding a diploma look back on certain traditions in Hungary. This relates mainly to engineers and physicians.

The first steps towards securing organized post-graduate studies for economists were taken only in 1962, when a Faculty for Post-graduate Economics was set up at the University of Economics.

The requirements raised on these post-graduate training courses were determined by several factors.

1. First, the concept of basic training itself should be mentioned. In higher — university and college — training in economics, there are two, equally luring, extremes. One is that of an all too general character, also used to be called "thorough theoretical, high-standard training". Such a concept of training entails the danger that the young graduate specialist will have difficulties to enter into economic practice, particularly into the work of the enterprises, the real everyday economic work. The other extreme is too wide specialization in basic training. This seemingly facilitates the entry into practical work, but is of doubtful value because the economist will be able to survey only a restricted field, and training will not help him in the formulation of a desirable complex approach to the problems. To avoid both extremes, it seems expedient to provide for training on broad theoretical foundation that will serve as a basis on which the faculties required from an economist may unfold and which gives only a start in certain economic directions and functions. This kind of training makes it the task of post-graduate training to help the specialization demanded by practical economic activity after practical experiences have been gathered for some time by the graduates.

2. The rapid progress of science and technology supplies new knowledge and makes old knowledge obsolete at a rate that it can be hardly followed by

* In the meantime, the book has been published: "Vita a gazdasági fejlődésről, a tervezésről és az életszínvonal-politikáról" (Discussion on economic development, planning and living level policy). Budapest, 1969. Közgazdasági és Jogi Könyvkiadó, pp. 273.— Ed. Note.

** The article does not deal with the post-graduate studies aimed at a scientific degree. This subject will be treated in another article in this paper at some later date. — Ed. note.

basic training and in a mass that is impossible to absorb in the course of regular education. Nor is it practicable to change continuously the curriculum and teaching materials, since a certain stability is an absolute requirement on all levels of education. But also the absorbing capacity of undergraduates sets a certain limit to what can be implanted from the growing body of knowledge within the time available for a full course (e.g. 8 terms). Beside maintaining the requirement of continuous selection, this circumstance shifts the teaching of part of the new knowledge and methods necessarily to the field to be covered by post-graduate education.

3. From all what has been said it follows that in our age, the diplomas acquired are becoming "obsolete" at an accelerated rate. Even without efforts at specialization, this fact makes in itself imperative for graduates to refresh their knowledge continuously. Beside self-education, the most obvious method is to secure post-graduate training in an organized framework.

The new system of economic control and management and post-graduate training

We believe that the problems outlined in the preceding present themselves in all countries, independently of their social system, essentially in the same way. There are, however, also special circumstances appearing in particular form.

In the major part of the last two decades such a type of planned socialist economy had prevailed in Hungary which was characterized by binding instructions in the control of the economy. Market relations were of subordinate importance for the enterprises. As a consequence, the work of the economists in the enterprises was focussed on organizing the fulfilment of the compulsory plan targets, on recording plan-fulfilment and on its analysis; the scope of decisions to be taken was rather narrow in this field.

The new system of economic control and management has created an entirely new situation for the enterprises and raised thus new requirements against economists. To put it in a somewhat simplified form: from the mere employees carrying out instruction, they must become specialists who prepare the decisions and take them with responsibility. The government's economic policy, the national economic plans and the mechanisms applied determine the directions of development, the limits of the possibilities and the system of incentives. In the knowledge of these and — as regards the main direction — conditioned by them, the economic units have wide autonomy in formulating and carrying out their own business policies, economic strategy and tactics.

In addition, also the possibilities and the needs of applying mathematical methods, sociology and psychology in economics under present-day Hungarian conditions have been essentially clarified. Interest has, of course, grown among economists in up-to-date methods of management and organization, in the mechanization of administration, and in information theory and methods. All this determines the program of post-graduate training in the present and the near future.

The present situation of post-graduate courses in economics

Up to now about 40, 000 specialists working in the economic field have attended the lectures and courses organized by the Post-graduate Faculty at

the University of Economics.* About 40 per cent of the courses were held in Budapest, 60 per cent in the major industrial and trade centres of the country. The lectures and practical courses were held by outstanding experts of theory (teachers and scientists) and practice. The programmes were for their major part worked out by the Faculty, but several controlling bodies (ministries, trusts) and big enterprises had also special courses organized for their staff. The normal courses mean in general a weekly lecture of 2—3 hours after work (in Budapest) or one of 4—6 hours every second week, partly during working hours (in the countryside). The special courses are usually accelerated and mean full day-courses for 2 or 3 weeks.

Accordingly, attendance is voluntary, or, in the case of special courses, the participants are appointed by the enterprises.

All students regularly attending the lectures will obtain a certificate of attendance. In the case of special courses, the participants are usually obliged to prepare a study in writing or to pass an oral examination. In other courses examinations are facultative; those passing the examination will receive a certificate.

The fees of attendance are extremely low and are to be paid, together with the examination fees, by the participants. In some cases, however, the enterprises pay instead. The costs of the special courses mentioned are always borne by the organizing body.

As regards methodology, the courses comprise lectures, exercises, simulation experiments as well as case studies.

In recent years, particularly great interest has been shown for the course entitled "Planning and mathematics", "National and enterprise finances", "Accounting in the service of enterprise management", "Management and organization under the new system of control", "Organization of an information system in enterprises", "Enterprise sales decisions", "Market research".

Some ideas about improving post-graduate training

In the centre of ideas about improving post-graduate training of economists stand the steps to be taken towards specialization. Ideas exist and schemes are being prepared for the training of marketing specialists with the proper approach; of managers and specialists capable of planning and doing analytical work and of preparing decisions; of economists well versed in the theoretical and practical problems of economic organization. In addition, also the forms will be retained which offer possibilities to obtain the knowledge necessary in certain jobs and activities. We are thinking here of such courses as Sociology, Advertising, Business law, International relations, etc.

It is an important task to provide basic and also post-graduate training in economics for people holding other diplomas (engineers, jurists, agriculturists, etc.). This is necessary because of the great number of specialists who are holding leading jobs in the economy but whose basic training was in an other discipline. These specialists, who are called upon to take important economic deci-

* The figures comprise some double-counting, since the same person may attend several courses.

sions every day, will feel it themselves that it is necessary to complement and improve their economic knowledge.

As regards the improvement in teaching methods, the experiments aimed at introducing programmed teaching in post-graduate training are promising and we think that it is in the first place the education of adults which requires and enables the introduction of programmed teaching. Independent learning and the possibility of self-control in the course of learning is particularly attractive to people who wish to study beside their daily work.

As regards the role of examinations in the system of post-graduate training, in our opinion, this has no particular importance, except in the forms where a successful completion of the course involves the issuing of a state diploma. In this case it is unavoidable that the participants should in some form render account of their knowledge. The forms may be diversified and include oral or written examinations based on traditional methods, as well as tests, etc.

Finally, we are of the opinion that in Hungary the organized, high standard post-graduate training of economists is at present only in its beginnings. Its development is an urgent problem both from the social and the individual points of view.

AN INTERVIEW WITH PROFESSOR RAGNAR FRISCH

Professor *Ragnar Frisch*, one of the founders and a leading personality of the econometric school stayed in Budapest from 29th March to 7th April, 1968. During his sojourn he had consultations in the Institute of Economics, Hungarian Academy of Sciences, and met the representatives of Hungarian economics, as well as several leading economic personalities. He also held a lecture, organized by the Institute of Economics and the Hungarian Economic Association, with the title: "Economic steering by incentives instead of by commands".

Professor *Ragnar Frisch* gave the following interview to the Editor which we present here in a somewhat abridged form.

Question: *What importance do you attribute to mathematical economics in a modern economy?*

Answer: It is my deep conviction that mathematical economics and, particularly, the various programming procedures will become absolutely indispensable tools of a modern economy in most non-socialist countries and especially in the socialist countries characterized by management "from above". This obtains even greater emphasis because of the reform of economic control and management since in almost all socialist countries the idea of management through incentives instead of control by commands is pushed into the fore.

In this connection I should like to warn against a danger, of which the most progressive politicians and economists of the socialist countries are fully aware but the same cannot be told about all economists. There are some economists who exclusively keep in view the many difficulties arising in a system relying on instructions and who fully appreciate that *the same* difficulties do not exist in a market economy. Therefore, they toy — without any self criticism — with the idea of a market economy as regards future development and give voice to such aspirations as would inevitably lead to a relapse into market economy. This approach amounts to an uncritical acception of the market economy. True, this is no real danger. The wrong orientation exists only in the

heads; *in reality* there is ample opportunity to preserve the social and economic ideals set by socialist society and abandon the system of commands without relapsing into a pure market economy. Also the up-to-date tools of mathematical economics render help that such relapse could be avoided.

Much has been done in Hungary to maintain the sound elements of economic management. It was a great satisfaction that I have not met with these dangerous ideas either in the higher leadership or in enterprises. They may arise mostly among economists on the medium level. Some of them make investigations which point to this dangerous direction. I think, e.g., of the investigations following the "von Neumann path". *John Neumann*, one of your compatriots, was a brilliant mathematician. I knew him personally, and was in close connection with him. The idea mentioned is also a product of this genius; it is highly valuable in several respects but may lead economic research astray. Such a false track is the theory of growth models.

Question: *Professor Frisch, which are, in your opinion, the directions within mathematical economics that have the most promising future?*

Answer: I have just mentioned the growth models. Well, the great mistake common to the models of this type is that they are of a passive character, so-called "looking-on" models. With their aid the road covered during economic growth can be illustrated and some prognosesca n be made. In reality, however, — and particularly in the socialist countries — not such models but decision models of an active character are needed, that is, which render help in the management of the economy, and — as I said in my lecture — may be relied upon in setting the fundamental objectives of economic policy.

As regards macro- and micro-models, they can be equally active or passive in character.

Question: *Many people think that the results of mathematical economics are too abstract and, therefore, not applicable in practice. What is your opinion of it?*

Answer: In addition to distinguishing active models from the passive ones, it is essential to make a distinction between the fully abstract, merely formal models and the mathematical formulations revealing real connections. It is of course, easy to produce formulae on a desk — that is, why so many are engaged in it. The difficulty begins when the degree of abstraction has to be chosen that will show the essential things and can be fruitfully used in the analysis of concrete situations. In this respect *Ricardo* was a brilliant economist, who could superbly feel what is essential and what can be neglected in the sea of economic relations. But Ricardo had it relatively easy because he was not compelled to think in the categories of our advanced and complicated economy. Our task is the same kind as was Ricardo's but it is much more difficult to perform, particularly if we wish to realize the objectives of a socialist society. In solving this task one cannot start merely from pure theory. Therefore, during my travels I have always made efforts to contact not only theoretical economists but meet directly also men from enterprises, some managers and observe thus the operation of a given system from within. I talked about this problem at the Zurich meeting of the Econometric Society. Later, at the Rome international conference I protested against abstract formal mathematization which I called "playometrics". My contribution stupefied part of those present while others eagerly applauded.

Question: *Some mathematicians said that the conditions for the application of mathematical tools are more favourable in the centralized model of economic management than in the decentralized one. What is your standpoint in this respect?*

Answer: In my opinion, this statement makes no sense, those who think so, turn things upside down. As a matter of fact, the decentralized model provides much greater possibilities for the application of mathematical methods than the earlier system. To control with the aid of incentives requires more mathematics than the more primitive system of commands. But if "playometrics" is meant, the statement is correct. There are fewer opportunities for that in the decentralized model.

Question: *Professor Frisch, are there, in your opinion, any differences in respect of the possible application of mathematical methods between non-socialist and socialist countries?*

Answer: The difference lies in the utilization of the models. There are models — and they are important ones — which may be used in both economic systems. Such are the models of consumers' demand. In both systems these are tools to analyse consumers' demand and behaviour, and may thus serve as a starting point for the determination of a basic conception of economic policy. Beyond that, however, differences are great even on the enterprise level, and they are growing as we advance higher to the national economic level. As is known, Western economists phrenetically worked, and are still working, on the analysis of market stability. One of their precursors was *Pareto* who — in one of his articles for the famous "Encyclopédie des sciences mathématiques" — investigated the problem of market equilibrium from the point of view of free trade. He stated he could mathematically prove that free competition is the best system which secures the equilibrium and stability of the market. He promised to publish the mathematical proof in a second article which, however, never appeared. It is my firm conviction, supported also by Professor *Del Vecchio*, who is the best expert alive of the literary legacy of Pareto, that Pareto did not write this article because, in the meantime, he realized having made a mistake in the mathematical deduction. In spite of this fact, even today there are many who think this statement of Pareto is absolutely valid. When, some ten years ago, I expounded at a conference of economists in Paris that free competition is the best system in the set of systems where only free competition exists, there were some nervous reactions.

Question: *Some economists, among them econometricians, emphasize that the capitalist and socialist system will in the course of progress converge on each other. Do you share this opinion?*

Answer: This is the so-called theory of convergence. But even the name itself is incorrect and misleading. In mathematics convergence means a process relating to the internal relations of a given system and this process is assumed to be stable. The correct terminology would be "confluence" because this relates to the amalgamation of different systems. But in the given case the confluence is only a superficial phenomenon which can be mentioned only if we do not penetrate to the bottom. This process does not basically exist and would ensue only if the danger mentioned became true and the wrong direction won in the socialist countries. But, as I emphasized, this is an irrealistic assumption.

COMMENTS

V. C. VIGAND

ONCE MORE ON THE WORLD PRICE OF OIL

An interesting article, "The International Oil Price Mechanism" [1] by *F. A. Hasab* proves beyond doubt that the price mechanism on the world oil market cannot be explained on the basis of the prime costs in oil production.

The author comes to the conclusion that the so-called posted prices of oil are calculated according to the cost of crude oil extraction under the less favourable conditions. (At present such conditions exist in Texas where high wages raise the extraction prime costs.)

Then the author puts the question whether under present conditions an absolute rent in the Marxian sense does exist or not in oil production. He comes to the conclusion that it does not exist because the organic composition of the capital operating in the oil extracting industry is not lower than on the average.

These conclusions deserve some comments.

The oil prices in the USA were shaped on the basis of prime costs in a period when the USA were the main producers and consumers of oil. That is why the American prime costs could be imposed on the world export price of oil.

The tremendous growth of oil consumption, as a result of the introduction of petroleum products into the economy of modern capitalism, brought an expansion of oil production outside the USA and mostly in less developed countries such as Venezuela and the Middle East countries. But in spite of the cheap oil pouring out of these countries into the world market, the export price of oil kept unchanged, since its exporters were the same American monopolies.

Thus, according to the Annual Report of the Chase Manhattan Bank for 1967, the largest 29 oil companies of the USA are responsible for 57 per cent of oil production of the capitalist countries, of which the USA supplies only 30 per cent [2].

Until recently, the configuration of political forces on the world oil market has not prompted the necessity of any change in the oil price mechanism as, firstly, the main oil extracting countries outside the USA were content with the minimum royalties and, secondly, political activities of their governments did not meet with any objections on part of the imperialistic powers.

Let us see in this connection what was the direction of oil movements in the capitalist world. The USA supplemented their domestic oil production by imports of oil from Venezuela, this oil being imported by the same American oil producing companies. Until the early 60-ies Western Europe was supplied with oil from the Middle East, but after the discovery of oil in Africa, Western Europe was provided with oil from the following sources (data for 1966): the Near and

Middle East — 57 per cent, Africa — 30 per cent and the Caribbean region — 6 per cent. In 1967, after the closure of the Suez Canal as a result of the Israeli aggression, the part of oil supplied from the Western Hemisphere grew to 6.6 per cent and the part of Africa — to 31 per cent, to the detriment of the part of the Middle East [3].

In his article F. A. Hasab describes the method of calculation of the posted price, FOB Kuwait, which was around $ 1.87 per barrel in 1967 [4]. This figure coincides with data published by the Algerian paper "El moudjahid" in 1967 [5].

These data about the calculation of prices on oil and petroleum products in Western Europe are worth of an analysis:

		USA dollars per barrel	Percentage
1.	Prime costs of oil extraction	0.25	2.3
2.	Income of oil-producing countries	0.74	6.7
3.	Profit of extracting countries	0.76	6.9
	Posted price FOB Arab countries	1.75	15.9
4.	Freight to Western Europe	0.60	5.5
5.	Costs of refining	0.50	4.5
6.	Storage and distribution costs of petroleum products	2.40	21.8
7.	Taxes in the country of consumption	0.75	6.8
	Costs of petroleum products in the country of consumption	6.00	54.5
8.	Customs duties in the country of consumption	5.00	45.5
	Selling price of petroleum products	11.00	100.0

The following conclusions may be derived out of these data:

a) The so-called posted price in Arab countries was around $ 1.75 per barrel both in 1964 and 1967 and it was comprised of $ 0.25 extraction prime costs and of $ 1.50 profits, distributed in the ratio of 50—50 per cent between the owner-country and the company which extracts oil.

It is a well-known fact that in the early 60-ies the Middle East oil-extracting countries achieved a rise of their share in profits from 25 per cent up to 50 per cent and in some cases up to 75 per cent. Such a rise was a result of the general changes which took place in the configuration of political forces on the world oil market. It was due to the growth of the liberation movement among the Middle East countries. Partly it was also due to the acute controversy among the imperialistic powers when, for example, the Italian state company "ENI" made its way on the world oil market by offering to the oil-extracting countries more favourable conditions in profit sharing (50—50 system or even 75 per cent in favour of the oil-extracting countries).

b) The share of posted price in the total price of petroleum products paid by consumers does not exceed 16 per cent and thus any change of this share will not greatly affect consuming countries.

c) Out of the total selling price of petroleum products reaching $ 11.0 per barrel (or 7 cents per litre) duties and taxes comprise $ 7.25 or 66 per cent.

It means that the share of purely productive costs rises only to $ 1.35 or 12 per cent. The costs of storage and distribution of petroleum products comprise $ 2.40, some part of it consisting of profits.

Under such conditions the prevailing price of crude oil will depend mainly on who refines it into petroleum products as well as on the distribution of political forces on the world oil market.

The main conclusion seems to indicate that the artificial character of prices on crude oil and petroleum products permits to suppose a future change in the method of price calculations on the world oil market, and a downward tendency of posted price may be envisaged at the expense of the developing countries as well as of the USA.

The following considerations may support such a suggestion.

The West European countries are not interested in paying for crude oil, on the basis of posted price, $ 2.35 per barrel CIF ports of Europe because it means, firstly, the payment of high incomes to African and Middle East countries whose governments have recently displayed such a measure of political independence as not to justify the payment of these incomes to them. Secondly, it means the subsidization of American oil monopolies, for whom this posted price constitutes the lowest possible limit of oil extraction with the high prime costs prevailing in the USA.

Development of oil extraction on the littoral of the Northern Sea and the growth of the volume of gas and petroleum products supplied by the USSR may result in a growing independence of Western Europe from the Middle East oil and from the American oil monopolies. This, in its turn, may lead to a re-assessment of the existing posted price on oil.

Construction of their own refineries by many developing countries has led to a diminishing of their dependence on the supply of petroleum products and thus will also contribute to a possible re-assessment of the posted price on crude oil. According to information available the developing countries shared in 1966 about 25 per cent of the total refining capacity existing in all capitalist countries [7]. The example of Africa is even more striking: if in 1960 only two African countries (UAR and Marocco) had refineries, now African independent countries count more than 30 refineries, whose refining capacity covers all their needs in petroleum products. But it means beyond doubt that these countries do not give back in the price of imported petroleum products a part of their profits which they had previously received as their 50—50 share of the posted price.

In this connection the question arises whether it is correct to say that absolute rent has ceased to exist in oil production, as it is conveyed by F. A. Hasab in his article.

It seems to me that it is incorrect and that the absolute rent, in the purely Marxian sense, is still being paid out from the high posted price on oil, determined by the high prime costs in the oil industry of the USA.

It seems to me quite right to consider royalties paid out in favour of extracting countries to the amount of 50 or 75 per cent of the posted price as an absolute rent. I think that such payments are analogous to the absolute rent, but the rent relations are now transferred to the international area with the state in place of the former landlord and international monopoly as capitalist.

It may be useful to remember that Marx thought about the possibility of rents to coincide with taxes in case the land is owned by the state [8]. Lenin,

in his turn, wrote in the article "The Agrarian Question and the Critics of Marx", that: "logically we can quite easily picture to ourselves a purely capitalist organization of agriculture in which private property in land is entirely absent, when the land is the property of the state or of a village community, and so forth" [9].

At the same time, it is quite true that the present conditions are rather paradoxical: Western Europe has to pay a high rent to the developing countries of the Middle East and of Africa only to enable the oil monopolies of the USA to go on with the profitable exploitation of their oil mines for their domestic consumption.

Oil has turned into the blood of the modern economic organism and one cannot suppose that it is an easy task to re-arrange the existing mechanism of the posted price.

But, at the same time, this is an inevitable process. One may say that as the USA as a whole got now into trouble by trying to support an artificial "price" of gold, so it is hardly possible for American oil monopolies to impose their high prime costs of oil extraction on the oil price mechanism of the whole world.

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BOOK REVIEWS

NYERS, R.: *Gazdaságpolitikánk és a gazdasági mechanizmus reformja.* (Economic Policy and the Reform of the Economic Mechanism in Hungary.) Kossuth Könyvkiadó, Budapest, 1968. pp. 398.

The book is a compilation of the author's reports to the Central Committee of the Hungarian Socialist Workers' Party, his lectures and studies in the years 1963 to 1968. The title of the book — and this follows from its character — is a motto and does not intend to indicate the subject or determine the systematization and the questions to be expounded according to the rules of logics.

The years 1963 to 1968 were a period when the historical task of the reorganization, on a collective basis, of an agriculture based formerly preponderantly on small-scale farms *was already completed but only the first steps had been taken* to approach the conception of economic policy to be formulated in the 15 year (1971—1985) and the five-year (1971—1975) planning. At the same time, it was in the years 1963 to 1968 that an extensive survey of the mechanism of the socialist planned economy was taking place and the reform of the system of control and management was elaborated and introduced. The Party considers this to be, after the nationalization of industry and the socialist reorganization of agriculture, the third great achievement in the socialist development of this country. All that is also reflected in Rezső Nyers' work.

If economic policy is conceived of as the unity of concept (system of objectives) and mechanism (system of means), the book is concerned rather with the problems of the mechanism and makes it clear how the latter reacts to the concept of economic policy. The reader will, nonetheless find a remarkable analysis also of the tasks of economic policy. In this relation I should like to draw attention particularly to the lecture given at the Political Academy of the Central Committee HSWP, under the title: "The role of technical development in our economic policy" (pp. 36—72).

Scientific investigation aimed at improving the operation of the planned economy started already in the first part of the 'fifties and in 1957 measures were initiated which affected the bases of the economic mechanism. These measures, and those following them, should also be taken into account if one wished to judge the far-reaching 1968 reform of economic control and management. Many years of preparations and experience justify the assumption that also the enterprises are able of a social approach to economic problems, and to keep in view also in the decisions formulated in a system of commodity and money relations the normatives of socialism.

In his report given at the session of the Central Committee in May 1963, Rezső Nyers pointed out four problems on which attention should be focussed both in economic and Party work. These were the following: 1. What should be done to increase national income at a quicker rate? 2. How can the balance of payments position with capitalist countries be improved? 3. How can the objectives of the third five-year

plan in respect of the living level be reached? 4. How and by what means can the standards of management be raised?

In the first part of 1963, the organic interrelations of these four problems were not yet clear to us. The question of further improving the operation of the economic mechanism had just been posed. Still, the report already indicated the main directions where the solutions should be looked for. Let me quote the most important theses.

"After the conclusion of the reorganization work now going on in the industrial enterprises, the system of control through planning and the financial system of the enterprises should be revised and developed in a direction that gives greater autonomy and possibility of movement to the enterprises and renders central control more efficient in the most important fields. At the same time, the collective material incentives to the enterprises should be increased." (p. 18). "In order to supply enterprises with materials in a more flexible way and to reduce national inventories, the material supply system of industry should be modernized. Efforts should be made to introduce continuous ordering and to shorten the terms of delivery. Commercial methods should be applied in a wider scope." (Ibid.)

The necessity of revising the system of economic control and management made itself felt already in 1963. This is why the Party decided to convene a conference of economists where also non-party scientists and economists participated. In his opening address R. Nyers said among others: "What justifies the convening of this conference? Our present situation justifies it, which demands that the requirements to be raised on economic science should be collectively taken into account and a correct way found for further action. In the interest of building socialism, it is desirable to give an impetus to scientific economic work and to make its problems more widely known." (p. 18). Then he emphasized again: "The purpose is a double one: on the one hand, to increase the rate of scientific clearsight; on the other hand, to extend the range of those acquainted with and adhering to Marxian political economy. The two purposes constitute a unity. As regards the correct application of Marxism-Leninism in the economy of this country, there is still much left to do. At the same time, the political economy of socialism has not yet been finally worked out in all its details. It is both necessary and possible to improve it. In the future, economics must rule also in the fields where today practicism and spontaneity are still absolute rulers." (Ibid.)

In December 1964, the HSWP took a resolution on the comprehensive revision of the system of economic control and management, and commissioned R. Nyers to direct the related work on behalf of the Party. Accordingly, R. Nyers directed and controled over almost two years the activity of about 150 party workers, economists and engineers. The book reflects, as it were, the labours, the maturing of the reform of the mechanism, the formulation of its essential principles; the interrelations of politics, society and economy and the profound feeling of responsibility that is necessary when someone serves a social cause affecting fundamentally the life of people.

The reports, lectures and studies, put in chronological order, make it clear how the economic problems which were finally summarized in the conception of reform were raised and came subsequently into the foreground. The article entitled "Two decades of the new Hungary" already indicates that the mainly extensive period of development is nearing its end and that the beginning of the intensive period has been reached. Already here, R. Nyers points out the important contentual elements of intensifying the economy: 1. Of the ways of developing productive forces, the technological development of productive equipment through reconstruction, investment and organization must be given a greater role, and activity aimed at the simple expansion of productive equipment should be relegated into the background. 2. The principal

form of increasing national income is no longer the growth of employment but rather the raising of productivity and the reduction of costs. 3. The main objective of investment policy is not to increase the volume of productive means on the given level of technology as quickly as possible, but to look for the most efficient technological development possibilities. From all these, the author was drawing already at that time the conclusion that the economic role of the consumer must be increased and the principle of independent enterprise accounting fully asserted. Thus, in the final analysis, the scope of the decentralized processes must be expanded within the planned economy (pp. 87—93).

In the article "On the problems of our system of economic control and management" R. Nyers feels compelled to enter into argument with those who would claim that the critique of the economic mechanism is, in fact, the critique of planned economy, and that the substance of the reform of economic control and management is a switch-over from planned economy to market economy. This study remains an important contribution from the point of view of clarifying notions and understanding the economic categories (pp. 114—131).

The report delivered in the session of the Central Committee (November 18—21, 1965) summarizes the first conclusions arrived at in the course of the extensive investigation of the system of economic control and management with the participation of a wide panel of specialists, a report on the basis of which the Political Committee recommended to the Central Committee to make fundamental and essential changes in the system of economic control and management. The report started from the thesis that the concrete system of control of a socialist economy cannot be considered to be eternal but is subject to the laws of change and development. The reform of economic control and management was presented here as a general political and social problem, one which is not the exclusive concern of economic specialists but a cause that concerns the whole Party and the people. Here we already find a more exact definition of the relation between planning on the one hand, and the commodity and money relations on the other. "Earlier, we had made efforts to prescribe the greatest possible part of production, turnover and consumption as central plan targets, mostly in physical terms. Today, we already discard this approach, attributing increased importance to the national economic plan as a means of economic policy. Earlier, the plan was considered essentially as the *totality of tasks (indicators) that can be prescribed in an administrative way, in the form of instructions.* Today, we already include into the notion the application of means of *indirect regulation* in the interest of attaining the plan objectives. Earlier, the compulsory character of the plan was interpreted as meaning that the attainment of the individual plan targets or indicators was *in itself* compulsory, whereas now we have come to mean by this that the *complex entirety* of the national economic plan is a compulsory directive in economic action." (p. 140).

The directives of the new system of economic control and management were discussed and approved by the Central Committee in its session held from 25 to 27 May, 1966. In his report, R. Nyers summarized the economic and political requirements, which he declared at the same time to constitute the substance of the reform, as follows:

— On every question, economic decision should be taken at a level where the best information is available and interest is most immediate. The possibility for enterprise decisions should be expanded, central state decisions should, however, be taken less frequently but become more comprehensive, better founded, and carry greater weight.

— The interaction between production and needs should be increased through market relations between sellers and buyers, the patterns of production and demand should be brought into greater harmony.

— The initiative and interest of the working people, workers and employees in directing and controling the economic processes should grow; there should be greater and more realistic possibilities for the unfolding of socialist democracy.

After the May 1966 resolution of the Central Committee, the work on the preparation of the new system of economic control and management started on a much wider basis; state executives joined the work in growing numbers. Report on this activity was rendered by R. Nyers at the June and November sessions of the Central Committee (pp. 270—284 and 313—329) and, as is known, they were followed by the introduction of the new system of economic control and management on January 1st, 1968.

It is almost impossible to summarize in the framework of this survey lal that is important in the book, or to render account at least of the extensive and far-reaching activity with which R. Nyers endeavoured to make clear the importance of the reform of economic control and management to industrial workers, cooperative members, technicians, economists and jurists alike, to point out to them the new tasks, rights and duties deriving from social activity and to win them in this manner for the policy of the Party.

Not only will these collected writings of R. Nyers vividly recall to the readers' mind the history of economic policy during the six years covered by them; they also convey a teaching how to approach the problems arising in the course of development of the productive forces, outlining the criteria originating from the substance of the socialist society.

B. CSIKÓS-NAGY

Studies on Developing Countries. Published by the Center for Afro-Asian Research of the Hungarian Academy of Sciences. Budapest. 1965—1968. Nos. 1—19.

The series "Studies on Developing Countries" had been started in 1965 by the Center for Afro-Asian Research of the Hungarian Academy of Sciences and until the end of 1968 19 papers were published under the following titles:

Economic Situation in the Developing Countries and their Role in the World Economy of the Next Decades *(József Bognár)*;

Priorities in Scientific Research and Adaptation in Economic Development *(József Bognár)*;

The Concept of Educational Development in Africa and its Problems *(Péter Mándi)*;

Our Economic Relations with Developing Countries *(József Bognár)*;

Problems of Classification in African Linguistics *(István Fodor)*;

The Indian Model of Planned Market Economy *(Baljit Singh)*;

Direction and Working Mechanism of Economic Life *(József Bognár)*;

Political Power and Economic Growth in Developing Countries *(József Bognár)*;

Economic and Political Desintegration and some Problems of Self-help in Developing Countries *(Tamás Szentes)*;

The New System of Planning and Management and East-West Trade *(József Bognár)*;

Obstacles of Economic Development in Developing Countries *(Paul Streeten)*;

Economics of Black Africa *(Tamás Szentes)*;

The Reasons of the so-called Economic Backwardness: its Characteristics and International Aspects *(Tamás Szentes)*;

Role of Ethnography in Revealing the Present Problems of Africa *(Irmgard Sellnow)*;

Economic Cooperation and Development *(G. M. Prohorov)*;

Views on Underdevelopment *(Tamás Szentes)*;

Economic Assistance of the Soviet Union to the Developing Countries (Staff paper);

Characteristics of Japan's Economic Growth *(Kenzo Kiga)*;

The Reform of the International Mone-

tary System and the Developing Countries *(Egon Kemenes)*.

A most striking feature of these papers is the wide variety of the subjects covered. General and specific problems of the developing world, cooperation between the socialist countries and the third world, factors influencing the background of the development process, like ethnography, experiences of developing countries which claim a general interest, or the accumulated knowledge of economic management in the socialist countries, the Japanese model of growth, etc., are all interesting subjects for reading.

The studies reflect the level of scientific research in Hungary and are important contributions to the world-wide research work on the subjects, espcially those which reveal the interrelations of political and economic processes in the developing countries.

Most of the authors are staff members of the Center for Afro-Asian Studies under the direction of Prof. *József Bognár*.*

Some of the papers were written by other senior experts of the subjects in Hungary or abroad.

Beyond their scientific interest in the subjects, most of the authors gained experiences in the developing world as experts working on different subjects and/or prepared their studies on the basis of research on the spot, in the developing countries. Due to their practical orientation and experiences, the most extensively discussed part of the third world in the publications is Africa, South of the Sahara. Other continents are not so well represented among the publications.

The papers are not voluminous. They are either small independent studies, lectures or parts of major works done by the Center or separate chapters of books written by the authors.

Most of them were published in 3—4 languages, Hungarian, English, French, Russian and some of them also in Spanish.

M. Simai

* Cf. Acta Oeconomica. Vol. 2. No. 3. *Editor's note.*

Printed in Hungary

A kiadásért felel az Akadémiai Kiadó igazgatója — Műszaki szerkesztő: Farkas Sándor

A kézirat nyomdába érkezett: 1969. V. 7. — Terjedelem 9 (A/5) ív

69.67614 Akadémiai Nyomda, Budapest — Felelős vezető: Bernát György

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Dr. István HETÉNYI, see Vol. 3. No. 3.

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Dr. Zoltán ROMÁN, see Vol. 3. No. 1.

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ADDENDUM

From the list of authors in No. 1, Vol. 4. of the Acta Oeconomica the following data had been unfortunately missing

Dr. Róbert HOCH, b. 1926. Candidate of Econ. Sci., Head of Research Group in the Institute of Economics, Hung. Acad. Sci., Member of the Editorial Board of the "Acta Oeconomica". Author of "Market Equilibrium and Changes in the Price-Level in Socialism", in Acta Oeconomica, No. 3—4. 1966. Co-author of "Planning the Rate of Increase in Composition", in "Economics of Planning". No. 3. 1965., and "A Critical Analysis of the Formation of Consumer's Food Princes", 1968., (In Hungarian), reviewed in Acta Oeconomica No. 1. 1968., and several other studies on consumption, demand, and income theory.

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102 pages, 15 × 18 avec figures. 1968. Broché. Prix: $ 1,80

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No. 2. en préparation. Distribué par KULTURA, Société pour le Commerce de Livres et Journaux (Budapest 62, P. O. B. 149) ou par les représentants à l'étranger

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A Quarterly Review of the Hungarian Academy of Sciences

Papers are published in English or in Russian, German and French.

Editorial Office: Budapest 502, P.O.B. 24

The subscription rate is Ft 165.— per year. Orders may be placed with *Kultúra* Trading Co. for Books and Newspapers (Budapest 62, P.O.B, 149) or with its representatives abroad, listed on p. 4 of the cover.

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Журнал Академии Наук Венгрии

Публикуется ежеквартально.

Статьи публикуются на английском или на русском, немецком и фпанцузском языках.

Адрес редакции: Budapest 502, P.O.B. 24

Подписная цена — 165 фт за год. Заказы принимает предприятие по внешней торговле книгами и газетами «Kultúra» (Budapest 62, P.O.B. 149) или его заграничные агентства.

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Vierteljahresschrift der Ungarischen Akademie der Wissenschaften

Aufsätze erscheinen in englischer oder in russischer, deutscher und französischer Sprache.

Redaktion: Budapest 502, P.O.B. 24

Jahresabonnementspreis: Ft. 165, —. Bestellbar durch *Kultúra* Außenhandelsunternehmen für Bücher und Zeitungen (Budapest 62, P.O.B. 149) oder bei den Vertretungen im Ausland.

ACTA OECONOMICA

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Les essais sont publiés en anglais, ou en russe, français et allemand.

Rédaction: Budapest 502, P.O.B. 24

Le prix de l'abonnement: 165,— Forints par an. On s'abonne chez *Kultúra*, Société pour le Commerce de Livres et Journaux (Budapest 62, P.O.B. 149) ou chez les représentants à l'étranger.

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30. VIII. 1969 Index: 26.031

ACTA OECONOMICA

ACADEMIAE SCIENTIARUM HUNGARICAE

ADIUVANTIBUS

G. CUKOR

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R. HOCH

F. KOZMA

F. MOLNÁR

I. VAJDA (praeses)

REDIGIT

T. FÖLDI

AKADÉMIAI KIADÓ, BUDAPEST

TOMUS 4
FASC. 3
1969

ACTA OECONOMICA

A MAGYAR TUDOMÁNYOS AKADÉMIA
IDEGEN NYELVŰ KÖZGAZDASÁGTUDOMÁNYI FOLYÓIRATA

Felelős szerkesztő:

FÖLDI TAMÁS

Szerkesztőség: Budapest V., Münnich Ferenc utca 7.

Megjelenik negyedévenként, évi 1 kötetben. Előfizetési díja belföldre 120,— Ft külföldre 165,— Ft kötetenként. Megrendelhető az Akadémiai Kiadónál (Bp. V., Alkotmány u. 21), a külföld részére pedig a Kultúra Könyv és Hírlap Külkereskedelmi Vállalatnál (Budapest I., Fő u. 32).

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IN MEMORIAM IMRE VAJDA

He was coeval with this century; the course of his life ascended together with that of 20th-century Hungary in the period of prosperity and declined to depths when the nation was hit by disaster. As a young student already, he joined the progressive movements, became a member of the Galilei Club, and was quickly imbued with the progressive ideas of the early 20th century. An active combatant of the 1918 revolutionary movements, he fought also in the army of the Hungarian Soviet Republic. Compelled to flee the counter-revolutionary terror, he emigrated to Austria where he spent almost two decades, playing throughout an active role in politics. Before the outbreak of World War II he returned to Hungary. Although persecuted for his political conviction, he survived the horrors of fascism.

After Hungary's liberation he played an active part in the country's economic and political life, becoming a secretary of state first in the Ministry of Trade and Cooperatives and later on in the Ministry of Trade. He had an outstanding role in laying the foundations of planned economy in Hungary and was the first president of the National Planning Office. In 1948 he became a professor of the Budapest University of Economics. Arrested in 1950 under false accusations, it was not before 1956 that he could again occupy his chair. He remained head of the International Trade Department of the Budapest University of Economics until his retirement in 1965.

In the major part of his life, Imre Vajda was a fighter and theoretician of the labour movement. His active scientific career began hardly more than ten years ago. In this comparatively short period he proved astonishingly prolific. With his rich political and economico-political experiences and great theoretical knowledge he contributed to raising the standards both of economic theory and practice in Hungary. During his years at the Budapest University of Economics he published two successful text-books: "International Trade" and "Socialist Foreign Trade". His scientific and economico-political activities centred on three objectives: improvement of the foundations of economic policy, raising of the standard of economic administration and strengthening of Hungary's international economic ties. He published a great number of essays and articles in papers and periodicals both in Hungary and abroad, many of which appeared also in English language in a volume entitled "The Role of Foreign Trade in a Socialist Economy", which was published in 1965.

Another volume of essays, to appear in German, is now in press. Imre Vajda held many lectures abroad, and was one of the economists submitting a report to the 1968 Montreal World Conference of the International Economic Association.

Imre Vajda contributed a lot to the development of Marxian economics in Hungary in the last decade, consistently fought against its dogmatic distortion. He took a firm stand for the reform of the management and control of the economy, playing an important role in its preparation as well as in its propagation both at home and abroad. His contribution to the solution of theoretical and practical problems relating to the socialist international division of labour was highly important. He also advocated the strengthening of economic ties between the two world economic systems, as well as an economic policy conforming to the country's endowments and the requirements of the international division of labour.

A leading personality of the Hungarian Economic Association reorganized in 1959, he became its president in 1963. In this capacity he did much to help Hungarian economists to gain social recognition, carried out a successful scientific organizational work and made great efforts to foster the international relations of Hungarian economists.

In 1963, he obtained the degree of Doctor of Economics; in 1967, he was elected a corresponding member of the Hungarian Academy of Sciences. He took an active part in the work of the Section of Economics and Law of the Hungarian Academy of Sciences. He was also a member of the editorial board of the periodicals "Közgazdasági Szemle" (Economic Review) and "Gazdaság" (The Economy).

For years, he has been gravely ill; the struggles and vicissitudes of life had undermined his health. But this could not detain him from working until the last moment.

A warm-hearted man and socialist humanist, he was led throughout his life by progressive and true ideals both in his great achievements and in his everyday activities.

Imre Vajda's death is a sad loss to the many thousands of Hungarian economists. Among the mourners is also this journal, Acta Oeconomica, over the editorial board of which he presided from the beginning. The journal's achievements up to the present are due primarily to his activities. Before starting in August 1969 on his Austrian lecture tour from which he did not return, he still discussed with us the contents of this year's last number. Thus, the whole 1969 volume will still bear the marks of his activity.

Imre Vajda's memory will be preserved by his pupils, colleagues and all those who learned to respect him both in Hungary and abroad. It will also be preserved in his works as well as in this journal to which he devoted so much care and which continues to work in the spirit of his intellectual heritage.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (3), pp. 223—237 (1969)

G. LÁZÁR

REGIONAL PATTERN OF THE HUNGARIAN ECONOMY

DEVELOPMENT AND SOME TOPICAL PROBLEMS

In the course of drafting the conception of long-term economic development also the results of regional development policy hitherto attained as well as its further tasks have been assessed. The author, who has a guiding role in this work, analyses the differences between regional development levels, the results of efforts at reducing these differences and the problems to be solved in future.

The work to provide a foundation for the long-term development plan of the Hungarian economy started with an analysis of the tendencies that had prevailed in the development of the preceding period. This work was performed by committees directed by the National Planning Office. One of these is the Regional Committee of Long-term National Economic Planning. It took a years's work for a great number of practical and theoretical experts to prepare — on the basis of an agreed list of subjects — the analytical studies which enabled a comprehensive characterization of the development of the *regional economic pattern* and its present features. From this material, rich in all respects, I have tried to select — keeping in view the limited scope of an article — the major findings that may most claim general interest.

The place of regional development policy in economic policy

The analytical work and the debates connected with it have made it sufficiently clear that regional development policy should be conceived of as an organic part of general economic policy. The special role of regional policy derives from the fact that society exists and develops in space, on a given area of the country and in close interaction with the given natural, geographical surroundings. A planned development of the economy, efficiency of extended reproduction, attainment of the basic targets of social policy, all require a deliberate harmonization of the development objectives of sectors and regions within the economy. This will — depending on the extent it meets the objective economic requirements and on the degree of actual realization — promote or brake development of the productivity of social labour.

Clarification of the basis of approach has been important and necessary from several points of view. Above all because — though especially in the last ten years economic policy has paid great attention to the gradual elimination of problems of social policy and of disproportions deriving from the regional pattern of the economy — the view is still being advocated that with the given small territory of the country the planning of regional proportions may be neglected. The discussions have confirmed the opposite view and led to the following conclusions.

Firstly, the spatial economic and social problems, though not independent of the *size* of the given country, are not primarily relating to this fact nor to the differences in natural and geographical conditions. Differences in *economic development level and in regional concentration* play a far greater determinant role here. The analysis has disclosed that the regional differences which make it imperative to pursue a deliberate regional policy do and will continue to exist in Hungary, too.

Secondly, the earlier system of economic control and management levelled off the economic relations also in respect of the regions. If only for that reason, the regional factors of the economy could not satisfactorily assert themselves, even though in reality they had a differentiating effect on the volume of social inputs. Formulation of a long-term regional development policy was rendered difficult also because planning approached the problems almost exclusively from the sectoral aspect and covered only shorter periods. Owing to all these circumstances, much is left to do both from the point of view of economics and *regulation* and from that of *methodology*.

Thirdly, both domestic and international experiences indicate that on the higher levels of economic development such problems are presenting themselves which were earlier unknown or which could be tolerated but whose answering and satisfactory solution is of fundamental importance for the economy as a whole. It becomes unavoidable to explore as thoroughly as possible the motional laws governing the process of urbanization and the emergence of agglomerations,[1] in order to formulate a *diversified development policy* enabling simultaneous enforcement of the requirements both of the tasks of social policy and of sectoral and macroeconomic efficiency. Thus, the importance of a well-founded regional policy which is in harmony with the main trends of development will increase rather than diminish in the future.

Fourthly, there can be no doubt that the emergence of an independent regional development policy within general economic policy is justified in so far as it fulfils special functions as part of the whole, that is, if it provides economically well-founded and interpretable ranking principles for the pur-

[1] This is the spatial complex of smaller settlements around a central one. The Budapest agglomeration, a notion to be used in the sequel, represents the complex of the capital and 45 settlements surrounding it.

poses of drawing up *the complex plan of the national economy* by formulating the requirements of regional proportionality. This concept will provide a general framework where it becomes possible to account for interactions between the objectives of the branches and the regions and also to harmonize them with one another. All this does not amount to more, or at least, not to much more, than has been already known from the statements made by politicians, research workers and planners engaged in the problem. Still, I am of the opinion that a summarization of the opinions of those working in various special fields has helped to strengthen the correct approach which can greatly promote a more fruitful cooperation between those planning on the sectoral and the regional levels.

What stage has been reached in the regional development process?

During the twenty years of building a socialist economy, one of the indicators and components of the transformation of socio-economic structure has been the great change in the regional features of the country. Great steps have been taken to reduce the grave disproportions inherited from pre-war times. By a differentiated development of the forces of production the grave backwardness in economic development level[2] has been overcome, and though this process cannot be considered as concluded, the spatial pattern of the country is today much *more even* in several respects than it was in the beginning stage of planned economy. A natural concomitant of all this, and a development envisaged in the plans, was that parallel with the general rise in living standards the regional differences in *living conditions* of the population also decreased.

This development process has also demonstrated that there are a great many factors contributing to the transformation of regional proportions and to the reduction of differences in development level between the individual regions of the country. Direction and possibilities of development, the weight and role of individual factors have been widely influenced by the prevailing *economic policy and the given system of control and management.* There is a distinct difference in this respect between the periods before and after 1957. The exaggerated efforts at industrialization, the autarkic endeavours reflected in the sector pattern, the neglect to develop agriculture and the infrastructure[3] put a brake on the rate at which regional disproportions could be abolished.

[2] The volume of corrected national income originating in industry and agriculture and its value per 1000 population (indicator of development level). The term is used to express approximatively the regional differences in economic development level within the country. The methodology of computing this indicator and the calculations used by the Committee were worked out by I. *Bartke* and V. *Kulcsár.*

[3] Here and hereafter, the term is used to denote the system of projects and institutions serving the productive process in the stricter and wider sense as well as those securing the supply of the population (public roads, railways, energy networks, water supply, research institutions, housing, trade, health service, education, public utilities, etc.) together with the services provided by them.

Economic policy after 1957, did, however, create relatively more favourable conditions for developing the industrially backward areas, and the rate of creating the basis of infrastructure was also accelerated.

As regards the tools of economic control, it could be stated that — owing to the lack of regional differentiation — the plan instructions restricted the

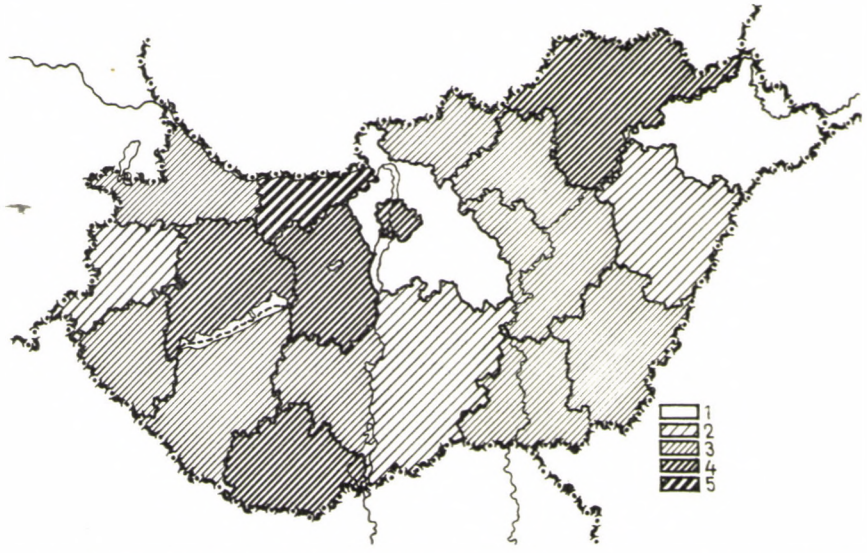

Fig. 1. Combined development levels of industry and agriculture, 1965]
(Based on multi-channel price-type). 1 very low; 2 low; 3 medium; 4 high; 5 outstanding

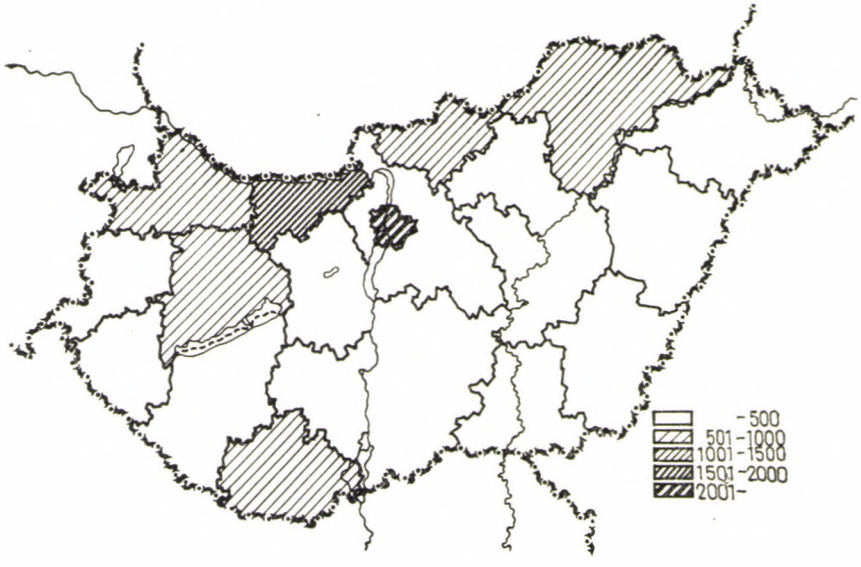

Fig. 2. Industrial employment per 10 000 of population, 1950

sphere where economic factors could assert themselves, particularly in the first half of the period under review. In addition, *overcentralization of control limited the scope of authority and the material resources of the local bodies to a great extent.* Though several measures were taken to improve the situation, an essential change can be expected only from the introduction of the new system of control and management. Especially in the first part of the period, the given conditions of the forces of production, the spatial distribution of energy, water

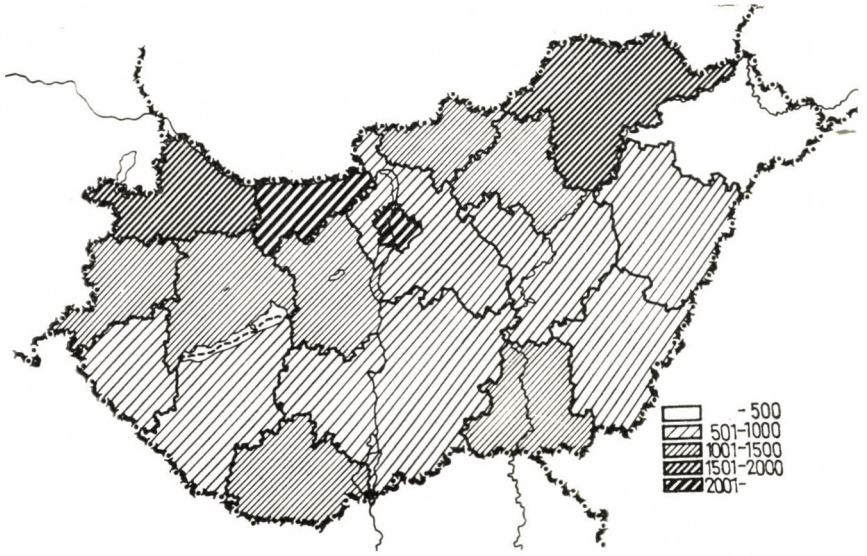

Fig. 3. Industrial employment per 10 000 of population, 1965

and other natural resources, the state of the transportation and other infrastructural networks, etc. had a determining role as forces which had to be objectively reckoned with both by economic policy and planning.

Although all these factors played an important part — with changes in extent and form over time — in the transformation of the regional economic structure and the main motive power of approximating the development levels to each other was still the policy of industrial location based on the high rate of industrialization. The present regional proportions of the productive forces, which may be considered as particular forms of appearance of the less and more recent past, have developed as a result of complicated interactions. The tendencies revealed by the process, which may be relevant also for the future and are the main characteristics of the actual situation, may be summed up as follows:

Development levels of the individual parts of the country have come nearer to each other but the differences are still of an extent that their reduction remains a prime task.

The combined development of industry and agriculture is a basic indicator of economic development level. The role of industry is primary but not *exclusive* in reducing the spatial differences in economic development levels. In the counties with a highly developed *agriculture* (e.g. Békés, Somogy and Tolna counties) agriculture today already *mitigates*, and in some districts even compensates for the disadvantages due to the relative industrial backwardness. Therefore, the deviations in economic development level between the counties (2.8-fold) and those in per capita personal income (about 30 per cent above or below the national average) are less wide than the differences in industrialization, where tenfold differences between counties can also be met with. This fact calls attention to the potentialities of agriculture which must increasingly be taken into consideration by regional policy as a factor promoting economic development.

Considering also the effects of past development on regional proportions, the country can, from the points of view of spatial development, be divided today into three area types of differing character. These are: *the Budapest agglomeration, the developed countryside areas and the underdeveloped countryside areas.*[4] Largely due to historical development, the essential difference may be found in the degree of industrialization — i.e. in the proportion between industry and agriculture — and this will help to explain, as regards the past, the differences in infrastructural development, employment and income relations, too.

Neither of the three area types is homogeneous and there are also certain similarities between them. In addition, the economies of all three are in a process of transformation. It is, therefore, obvious that the above classification is only a provisional framework and acceptable only for the definite purposes of the present analysis.

The Budapest agglomeration

The Budapest agglomeration is a diversified and developed manufacturing concentration with an outstanding role in the country's economy. 44 to 45 per cent of those employed in the socialist industry work in the area of the agglomeration, above all in Budapest itself. The share in total output value is somewhat higher, that in fixed assets somewhat lower; the latter phenomenon may be explained by the relatively lower capital intensity of manufacturing. The degree of concentration is very high even by international standards; owing to its importance, its existence must be taken into account together with all its contradictions. By every experience, development of the agglomera-

[4] The basis of delimitation is the corrected national income of industrial origin per 1000 of population. The "economically developed" and the "industrially developed" areas or counties are essentially identical.

tions cannot be "stopped", nor would this be expedient. It is all the more important for economic policy and planning to work out a well-founded program in order to eliminate the increasingly pressing social problems and contradictions arising from the situation.

In respect of the Budapest agglomeration these problems boil down to the fact that the existing pattern of industry and its degree of modernization are not in harmony with the special situation developed here, above all with the scarce resources of labour. There are disproportions between the infrastructural demand of the productive branches and the population on the one hand and the level of supply on the other. Relative congestion and unplanned development in the outer belt of the agglomeration give also cause for growing anxiety.

All this means also that development of the existing capacities and a raising of infrastructural supply for both the inner and the outer belts to a proper level will entail *rising unit costs*. It appears, therefore, obvious that in the future preference must be given to large *reconstruction projects instrumental in raising the technical standards* to "rationalization" and extending over the agglomeration's entire economy. This should reduce the demand for labour or, rather, secure the additional labour required by *internal* regrouping.

The developed countryside areas

About 32 to 33 per cent of those employed in socialist industry are living in the *developed countryside areas*.[5] The relatively high level of industrialization is due mainly to the high share of coal-based sources of energy and other extracting industries. The industrial pattern of these areas underwent significant changes in the past and the process still continues. On the one hand, engineering, aluminium production and the chemical industries are on the advance while coal mining is decreasing in importance. The latter causes, at least transitorily, serious problems in some mining areas where the maintenance of a proper employment level requires transformation of the pattern of the economy. In a considerable part of these areas the condition of agricultural production is — with the exception of the Kisalföld (Smaller Lowlands) — below average; the pattern of production must, therefore, be developed in a direction better conforming to the endowments.

From the point of view of *labour management* the picture is not uniform. There may be found areas which definitely attract manpower and there are still counties and areas with abundant labour reserves. The state of the infrastructure, though above average, is still falling short of requirements. The changing pattern of the economy and within it that of industry, together with

[5] This category includes — on the basis of the indicator mentioned — Baranya, Borsod, Fejér, Győr, Heves, Komárom, Nógrád and Veszprém counties.

the existing and rapidly developing industrial centres, promise great advantages for the future. The latter — and especially the major towns as Miskolc, Pécs, Győr — may attain a particularly important role as strong *centres of attraction* which may mitigate to some extent the problems of the Budapest agglomeration.

The underdeveloped countryside areas

The underdeveloped countryside areas[6] occupy about half of the country and about 40 per cent of the population is living there. They are generally characterized by the preponderance of agriculture, relative abundance of labour resources and a low degree of urbanization. As a result of a deliberate industrial location policy, development in these areas was quite considerable in the past ten years and has even accelerated since the middle of the 'sixties. About 20 per cent of those employed in socialist industry work in these areas, a remarkable progress as against 12 per cent in 1949 which finds its expression also in the fact that industrial employment per 10 000 heads of population has increased to fivefold. The basic problem is still the low level of industrialization. Up to now, this could not be counterbalanced even by an accelerated rate of agricultural development in these areas, though in some districts agricultural production has reached a relatively high standard.

In the structural problems of these areas, and mainly in the insufficiency of industry, the lack of traditional sources of energy and relative obsolescence of the transportation and energy networks have played a role, together with the backwardness of the skilled labour basis. However, this situation is now changing, and the still abundant labour resources, probably the possibilities of the water resources, proximity to the most important export-import routes and, last but not least, the expected further development of agriculture, are factors constituting a development background which offers great advantages to the national economy.

Economic concentration and migration

The process of economic concentration is clearly expressed by the changes in the spatial distribution of the economically active population and of productive investments. Between 1949 and 1966, the number of active earners increased by about one million. The Budapest agglomeration and the developed areas account altogether for 94 per cent (54 and 40 per cent, respectively) of this increase and the so-called backward regions for 6 per cent. In other words, in 1960 about *60 per cent of the population lived in areas with a higher develop-*

[6] Including Bács, Békés, Csongrád, Hajdú, Somogy, Szabolcs, Szolnok, Tolna, Vas and Zala counties.

ment level as against only 54 per cent in 1949. This huge change is the resultant of complex socio-economic movements, within which supporting and counteracting movements may be equally found.

Under the effect of general and sectoral location factors as well as owing to the given distribution of resources, about 75 per cent of investment in the socialist sector took place in areas which were developed already in the past. A differentiated development of the forces of production was the prime mover of the spatial concentration of the economically active population, of the *great population migration.* (From the less developed, mainly agricultural, areas about 550 thousand people have moved to the more industrialized parts of the country while the number of those commuting daily or at longer intervals, rose to about ninefold.)

On the other hand, the process of regional regrouping was *mitigated* by the fact that the rate of natural population increase was highest in the economically less developed areas. Moreover, after 1957 industrialization accelerated even in these areas. And the circumstance that socialist large-scale agriculture may increasingly contribute to the economic upswing of certain areas indicates, in our view, that the future prospects of reducing the regional disproportions in development level may be considered as relatively favourable.

Growing division of labour as a concomitant of regional development

We are witnessing a development in the connections between the two basic branches of production, agriculture and industry, as well as a progressive division of labour between the agrarian and industrialized areas. Industrial processing of agricultural products has come nearer to the main agricultural areas. (As a new feature of this process, agricultural cooperatives have begun lately to organize primary industrial processing of their products on an increasing scale.) Similar changes in regional proportions, although rather unsatisfactory as regards their rate, may be observed in industries playing an important role in the material-technical supply of agriculture. At the same time, it is a characteristic feature of the growing division of labour that the agrarian areas are increasing their share in supplying the more industrialized areas with agricultural produce.

Under the effect of a growing spatial division of labour in industry, the industrial pattern of the individual areas has become *more diversified.* The emergence of new industries, the formation of large industrial combines, the deliberate efforts of industrial location policy have played a part in this development. Similar tendencies, though on much smaller scale, may be observed also in agriculture. Here, a marked tendency appears towards regional specialization in plantation cultures — vine and fruitgrowing — and in vegetable growing. In transportation, division of labour between railway and road

transport has increased. But the transportation network has not changed basically and remained centred on Budapest.

The regionally differentiated development of the forces of production, the concentration process, the expansion of spatial division of labour have acted at the same time towards developing the connections between town and countryside.

The process of equalizing living conditions

A regional analysis of living standards (incomes and consumption) has shown that their development — though positive in the final analysis — was burdened by internal contradictions. In the first part of the period, spatial differentiation even increased owing to the biassed industrial development and erroneous agricultural policy, and it was only after 1957, and particularly after the socialist reorganization of agriculture, that the conditions of levelling off have matured. There are, however, still areas in the country where the income level of the population is considerably below the country average. The opinion according to which the causes of the persisting of this situation must be sought in the still existing differences in development level, may be proved from several aspects. It can be most easily illustrated by the dispersion of the earner/dependant ratios. As a matter of fact, in 1966 the number of dependants per 100 active earners was 79 in Budapest, whereas it was 122 in the developed country areas and 128 in the underdeveloped ones (154 in Szabolcs county). Since regional differences in the wage level of the individual branches are not significant (those existing are due rather to differences in structure), the above ratios clearly illustrate the rather *significant regional differences in income per family member*. It needs no proving that a lower income level necessarily implies also a lower cultural and civilization level, and gives rise also to several other problems which cannot be neglected from the social point of view. It should, however, be emphasized that all this is not inevitable — especially not to the present extent — and *that with a rising level of economic development the differences can be substantially reduced.*

From the point of view of other factors affecting living conditions, it is a healthy feature that the changes in the regional allocation of infrastructural investments have in the last 8 to 10 years greatly helped the tendencies towards equalization. As a result, the so-called service institutions have been established even in such areas where the degree of industrialization is otherwise low. This can be measured with the aid of such specific indicators as the regional changes in health services, the network of schools, and housing. The rate of development is more modest and by far not satisfactory in water supply and sewage.

The *settlement network*, which has a direct influence on the living circumstances of the population, has undergone essential changes. The main characteristic is an acceleration of urbanization. *In comparison to 1949, urban population*

has increased by about one million, of which almost 350 thousand fell to the capital, somewhat more than 200 thousand to the five big towns and nearly 400 thousand to the cities with a population over 30 thousand. Actually, *about 44 per cent of the total population live in towns.* A similar concentration process may be observed in the development of non-urban settlements. With the socialist reorganization of agriculture and in the wake of cultural development, single farmsteads are vanishing at an accelerated rate. Examining the direction

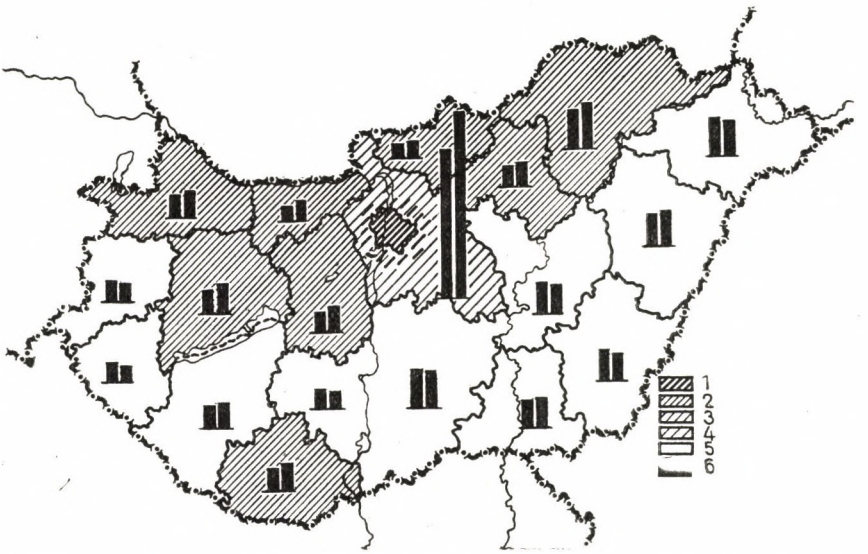

Fig. 4. Changes in the population of some regions and counties, 1949—1967.
1 Budapest; 2 Budapest agglomeration; 3 Industrially developed counties, 4. Pest county; 5. Industrially underdeveloped counties, 6.=200 000 people; population in 1949 and 1967

of the main tendencies outlined in the foregoing and their reverberating effects, it can be stated that these processes have, with all their contradictions, contributed to the positive development in the regional pattern of the economy and thus also to the realization of the objectives of economic policy. As a result of this development, the present economic, population and settlement networks, and the infrastructural basis contain many new elements which *create more favourable conditions than those in the past for economic policy* aimed at promoting the future development of the regional pattern of the economy.

The tasks of economic policy have remained complicated

Having reviewed a considerable part of the body of knowledge accumulated up to the present day we have come to the conclusion that economic policy and planning still have many problems to face. The complex and contradictory character of the regional aspects of economic policy has been felt

already in the course of the analytical work. This compels us even more to expand and intensify our future research activity. It can be shown *that a rational implementation of sectoral and regional objectives creates a community of interests* at an increasing number of points, but coordination requires a better knowledge than hitherto of the economic interrelations and the objective economic possibilities of social development. Here, I wish to draw attention to those problems the role of which in providing a foundation for the objectives of economic policy I consider most likely to grow. These are the following:

a) *Effect of regional differences in economic development level on socio-economic development.* There is a close connection between economic development and living standards, living conditions. Mitigation and a *gradual levelling off* of differences between the two has become a social aspiration. To what extent and in what respects can this aspiration be considered as justified and how can its satisfaction be approached?

Furthermore, the spatial factors have considerable effect on the attainment of the objectives of social policy, in so far as maximum utilization of economic potentials is to a certain extent also a result of reasonable spatial proportions. What do our reserves in this field consist of, and how can they best serve the purposes of development? These are questions, the answers to which entail important consequences for the whole economy.

To this end, it will, however, be necessary to clarify more exactly than hitherto the criteria of development variants which are optimal both from the spatial and the sectoral aspects. In industry, it is primarily the relationships between optimum plant size and the spatial division of labour that need more detailed clarification. Transportation costs, the locally varying productive inputs of raw and basic material, the social cost of securing the necessary manpower, etc., are factors which will obviously exert an increasing influence on development efficiency in the future.

b) *The special role of infrastructure in the spatial system of the economy.* This problem deserves particular attention because the infrastructure which claims already some two thirds of all fixed assets of the national economy, creates *spatial connections* between the different sectors; the regionally differentiated effect of infrastructural asset engagement will markedly influence the macroeconomic efficiency of developing certain sectors or enterprises.

In other words, the efficiency of enterprise development cannot be judged exclusively from the point of view of the efficiency of non-recurring and current inputs in the plant. According to the data available, in 1965 the average engagement of infrastructural assets per person employed was 100 thousand Forint. At the same time, the average of industrial fixed assets per person employed was 150 thousand, while the corresponding figures for engineering and the light industry were 90 thousand Forint and 60 thousand Forint, respectively. In other words, the role of infrastructure in the efficiency

of the national economy may be almost as great as that of the assets engaged in the plants and in some industries it may be even greater than that.

In the differences between the size of infrastructural assets engaged the individual settlement categories also play a considerable role. Greater attention than hitherto must, therefore, be paid to the relations of assets engagement in and among the settlements.

c) *The effect of settlement concentration on economic development.* A particular form of economic concentration is the concentration *of settlements* which acts in the direction of industrial and population agglomeration. This process may be observed in every rapidly developing economy. Its primary motive force consists of the economic advantages manifesting themselves in the unit cost of expanding production on both the enterprise and the national levels up to a certain stage of development.

The usually extremely rapid growth of the agglomerations entails also additional problems which, after some time, cease to be in proportion with the advantages and even become definite sources of social waste. In Hungary, Budapest is at present still the only developed agglomeration, with all the advantages and drawbacks of this settlement form. But several of the country's towns have become industrial centres and will assume in foreseeable time the characteristics of an agglomeration. On the other hand, deliberate efforts should be made to create some smaller industrial and population concentrations which can offer the maximum of advantages deriving from concentration without the disadvantages of agglomeration. The internal laws of these movements have to be studied in order to be able to exploit future advantages and to avoid, if possible, the drawbacks.

In reality, there are, of course, many more problems of greater intricacy to be solved by economic policy than could have been dealt with in the foregoing. We cannot even pretend to having clarified all important problems that pose themselves under the conditions of the present system of economic control. It is fortunate, however, that the research basis of these problems is broadening and it can be confidently expected that in the process the economic foundations of regional economic planning will also become more comprehensive.

A summary of the main conclusions

As mentioned in the introduction, the analysis hitherto performed was intended to provide a foundation for long-term planning. It is only understandable that an attempt has been made to formulate also the *conclusions* that may be useful in the future:

a) The past twenty years have brought a clearly perceptible and large-scale development in the regional pattern of the economy and a great step has

been made towards eliminating the basic disproportions. Nevertheless, for a long time to come, the central task of regional development policy will be to support the correctly interpreted *equalization tendencies*. On the other hand, the task will become more complex, since increasing the efficiency of the national economy will, also in the interest of society, become a postulate equal in rank with the requirements of social policy. In the course of practical work, these two requirements may transitorily come into contradiction with each other and our present planning methods may easily prove inadequate to solve this contradiction unless we improve them.

b) On the present development level of our economy, some limiting factors which had been determinant in the past are now diminishing in importance. At the same time, *new, favourable* conditions have been created for regional equalization. It is highly important, among other things, that although industry continues to play an important part in raising the development level of some regions, in others the development of *agricultural production* is assuming an increasingly *decisive* role, relying on a more intensive utilization of the available reserves with the help of more advanced agricultural techniques than those hitherto employed. In this way, agriculture may play an increasing role in levelling off the differences in the living conditions of the population.

c) The centres that have been or are emerging in the countryside — especially the towns — provide favourable conditions and may put up a growing competition to the attraction of Budapest. A planned and balanced development of the settlement network and an improved infrastructure in the countryside will, coupled with other factors, undoubtedly give rise to positive trends in the division of labour.

d) The reform of economic control and management has brought essential and overwhelmingly positive changes also as regards the factors affecting the spatial location of the productive forces. The substance of these changes is that the economic categories have come to reflect more accurately than earlier the spatial differences in costs and profitability, providing thus a better orientation for central as well as enterprise decisions. It is, nevertheless, to be expected that with the continuously changing relations, the future objectives of regional development policy, the experiences of the operation of the regulation system may reveal new requirements and problems which will also have to be carefully analysed when working out the concept.

In conclusion, it must be emphasized that the key to gradual levelling off is to be sought in the attainable general growth rate of the economy, which in turn will have to be increasingly based on a simultaneous increase in efficiency. This is what regional development policy must also sustain. In the next phase of the work, that of working out the long-term development concept, it is this principle that we intend to observe.

РАЗВИТИЕ ТЕРРИТОРИАЛЬНОЙ СТРУКТУРЫ И НЕКОТОРЫЕ АКТУАЛЬНЫЕ ПРОБЛЕМЫ НАРОДНОГО ХОЗЯЙСТВА

Д. ЛАЗАР

Политику развития отдельных территорий необходимо воспринимать как органическую составную часть общей экономической политики. Своеобразие функции территориальной политики объясняется тем, что общественно-экономическое развитие происходит на данной территории страны во взаимодействии с данными природными и географическими условиями.

Территориально-экономические и общественные проблемы не являются независимыми от размеров данной территории страны. Но еще более определяющее значение имеют различия в уровне экономического развития и территориальной концентрации.

Прежняя система экономического управления нивелировала экономические отношения и в территориальном аспекте. Ныне территориальная структура экономики уже во многих отношениях более выравненная, чем в начале ведения планового хозяйства, уменьшились территориальные различия и в условиях жизни населения страны. Основным выразителем экономического развития является совместный уровень развития промышленности и сельского хозяйства. Роль промышленности в деле уменьшения территориальных различий экономического уровня является первостепенной, но не исключительной.

На этом основании страну можно подразделить на три части: агломерация Будапешта, развитые провинциальные территории, неразвитые провинциальные территории.

Далее автор статьи знакомит с этими тремя видами территорий, их специфическими чертами и проблемами.

В следующем разделе рассматриваются вопросы экономической концентрации и миграции населения, дается анализ изменения разделения труда как фактора, сопровождающего территориальное развитие.

Развитию отсталых территорий, естественно, сопутствует выравнивание или, по меньшей мере, улучшение жизненного уровня. Значительно улучшилось медицинское обслуживание населения, его жизненные условия, расширилась сеть школ. Существенные преобразования произошли в сети населенных пунктов, главная отличительная черта их — ускорение процесса урбанизации.

Эти процессы способствовали развитию территориальной структуры экономики в положительном направлении и, тем самым, достижению общественно-политических целей.

В заключительной части статьи говорится о задачах экономической политики, в итоге автор суммирует основные выводы.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (3), pp. 239—258 (1969)

GY. CUKOR

LONG-TERM PLANNING AND TECHNICAL PROGRESS

The author investigates in his study the conceptual and methodological problems arising in the course of forecasting technical progress. He analyses the importance of changes in the patterns of production and consumption, in technology, in the reserves of natural resources and in the division of labour from the prognostical point of view.

In recent years the elaboration of *long-term* (15 to 20 year) plans beside the short-term (annual) and the medium-term (5-year) ones has come to the foreground both in Hungary and in other socialist countries. This fact is a consequence of the development of planning and control methods and also — at least partly — of changes in the targets of economic development. Long-term planning necessitates a novel kind of approach to the problems of planning technical progress both from the methodological points of view and concerning its content.

1. Long-term plans in the system of economic planning

The concept of economic planning emerged as a result of the socialist evolution and the coming into being of the socialist economy. The first economic plans were drawn up in the Soviet Union; planning appeared originally as an antithesis of capitalist economic anarchy regulated by the market and burdened with crises and unemployment. Due to the historical conditions of its origin, planning was first highly centralized. The main tools of implementation were direct administrative instructions which seemed at the time to constitute the only possible or, at least, the only correct form. The idea of the necessity of some other form of planning did for a long time not even occur. As a matter of fact, up to the 'fifties economic planning existed only in the socialist countries. The methods were highly similar in the different countries, at least in their centralized and directive character. This was the type of planning the European peoples' democracies adopted in the second half of the 'forties and tried to adapt to their own conditions. From the middle of the 'fifties, and especially from the beginning of the 'sixties, the practice of planning has been changing

and so have — perhaps to an even greater extent — the views about the substance of planning, its functions and methods.

In Hungary the conception was initially prevailing that the substance of planning consisted in drawing up balances (mostly in physical units of measurement) and to secure thereby harmony and consistency of the plans. Under certain conditions, this may be a useful (or the only possible) form of planning, since it is suited for rapidly mobilizing the existing resources in the interest of a few central objectives (priorities), particularly if the economy is relatively simple and there are few trained specialists available for the more complex tasks of management. The method is, however, efficient only if there are few practical alternatives to choose from and the economic decisions are simple, consisting only in ranking according to clearly unequivocal priorities since, on the one hand, there is less of everything than would be needed and, on the other hand, the economy is autarkic (with foreign trade having only a complementary role, namely, to export what is in surplus and to import what cannot be produced at home at all). In the case of a less simple decision, however, where there are various alternatives to choose from, the balancing method is usually inadequate since it lends itself only to planning an equilibrium of resources on the one hand and demands on them on the other, but not for deciding upon the best utilization of resources.

But new methods have become necessary also for the *operative management of the economy*. The basic idea, or, at least, an indispensable condition of a perfect functioning of highly centralized planning and its implementation by means of instructions is the assumption that — to put it in a rather exaggerated way — the planning centre is omniscient as well as omnipotent or nearly so. Under this assumption, the functioning of the economy could be ensured by "carrying out" the plan of a compulsory character and achieving thereby the most favourable economic development conceivable under the given conditions. Partly under the pressure of practice but also owing to the theoretical ideas about the purpose and functions of planning, the plans and the instructions embodied in them became ever more detailed (particularly in the periods when difficulties were increasing in the economy) in order to avoid that the actual course of development should differ, or should be shaped differently by the enterprises, from what the planners had planned. This concept would consider the plan a highly detailed and entirely interrelated system, with the national economic plan the sum total of the plans of the individual sectors (ministries) and the plan of the ministry that of the plans of the enterprises — and even the plans of the latter "broken down" right to the workbench.

From the discussions preceding the reform of the economic mechanism the deficiencies of too detailed and over-centralized planning have become generally known. This type of planning had frequently led to plan instructions

that could not be carried out or contradicted each other, and it was not uncommon that the real economic interests — not only of enterprises but of the national economy as well — would have been better served by deviating from the plan instead of adhering to it.

It was due to an increasing criticism of the earlier concept and of the economic practice that had been prevailing up till then that the first, relatively simple, foreign-trade and investment efficiency calculations were carried out in 1954—55 to provide a basis for a rational choice between alternatives. (These calculations were primarily aimed at correcting the fixed prices which reflected incorrectly macroeconomic costs, partly by introducing a charge on assets and partly by taking more into account foreign exchange returns and expenditures.) Somewhat later started the elaboration of input-output tables and their application as a tool suited, on the one hand, for the calculation of a comprehensive balance system covering the whole economy and replacing the partial balances and, on the other hand, to work out (with the aid of the inverse matrix) not only direct but also indirect connections, securing thus consistency of the balance also in the case of structural changes.

The programing models may be considered as combinations of the economic efficiency calculations and the balances. They are suited to work out, on the basis of limited resources and various possible alternatives, the variant which is — within constraints set in advance — optimal from the point of view of some system of priorities (objective function).

All this was mainly connected with the drawing up of the plan and did in itself hardly change anything in the too detailed methods of planning in the interrelated rigid system of the plans and in their directive character. The efficiency calculations, the input-output tables, as well as programming can be fitted into any system of planning and economic control.

Gradually also the ideas about the control of the economy and the functions of planning in economic control underwent a change. The main feature of the change was an emphasis on *decentralization*; the tendency towards the view that problems should be decided where they are best known and only the main objectives should be centrally set, whereby the number of compulsory indicators could be greatly reduced. According to the new concept, there is no need for an entirely closed plan system (i.e. the sum of enterprise plans need not agree with the plans for the ministries but may be more or less than the latter). The main tendency towards decentralization, the reduction of compulsory indicators and the setting of the main objectives in the form of some income or profit indicator can, as a matter of fact, be found in most socialist countries. In this country the reform of the economic mechanism went even farther, doing away with the compulsory character of the plans, at least as regards the enterprises. According to the basic concept of the new economic mechanism, the national plan comprises objectives of economic policy together

with the measures to direct and influence its implementation. It is not the compulsion to "carry out" the plans but the incentives provided by the measures of state control that guide the enterprises in the direction of the most suitable economic development which is generally laid down also in the central plans.

Now, with the plan ceasing to be a highly detailed instruction to be carried out by the enterprises and becoming an expression of objectives of economic policy and a means of their attainment, there appears an increased need for long-term plans besides the annual and medium-term ones, i.e. for a knowledge also of the farther perspectives.

Theoretically, it has been recognized long ago that a complete system of planning must comprise, beside the annual and five-year plans, also the long-term plans. However, at least in this country, apart from a rather unsuccessful experiment, practically no long-term economic planning did ever take place.

It has been clear for some time that there are decisions the implications of which must be investigated in a wider perspective than that of a five-year plan. Cases in point were, e.g., problems connected with major investments with a gestation period exceeding five years. Therefore, where the necessity arose and also the needs could be relatively easily assessed for a longer period together with the possibilities, also 15 to 20 year plans were drawn up. Most experience has probably been gained in the fields of energy production and utilization, as well as in the long-term planning of the supply of qualified technical personnel (engineers and technicians). All this has, however, not led to drawing up interrelated long-term plans.

The need for long-term planning arises primarily from the fact that economic and social progress must generally be viewed in a longer perspective and in its complex interrelations. It is not sufficient to follow up development to the end of the five-year period; investigation of future prospects should extend also beyond that term. This is necessary because at least part of the decisions taken at present will affect longer periods than five years; therefore, the decisions embodied in the five-year plan or taken in the course of the plan period can be correct only if it is possible to assess the long-term implications.

The long-term plan will be much less based on the situation prevailing at the time of drawing up the plan and on the concrete problems of the day than the medium-term and especially the annual plan, though the given situation will in many respects determine both the tasks and the possibilities for a long time. *The most important task of long-term planning is precisely to direct attention to the problems which do not derive from the actual situation but from a change therein.* All plans have, of course, prognostic elements, but it is in long-term planning that prognosis has a particularly great role, where changes must be forecast in factors which do not depend on a single

decision and particularly not on one taken in a small country. These prognostic elements may provide the skeleton of the plan, its supporting structure, since their knowledge will enable to make the decisions to which the elements of development to be influenced by the decision can be related. The purpose of prognosis is, therefore, primarily to promote decisions best suited to further economic development and the social objectives; however, correct prognosis will be useful in itself, helping as it does to channel the decentralized (enterprise) decisions in the right direction.

Technical progress is an important prognostic element of long-term planning. In the following, we will deal with this factor in some detail.

2. Interpretation and prognosis of technical progress in long-term planning

Technical progress and technical development are generally well-known notions, the contents of which are, on the whole, clear, although what public opinion means by these terms is rather the dazzling results and the novel achievements in astronautics or atomic energy, while people are inclined to overlook the minor steps forward and the improvements in various fields which are at least as important as regards their economic bearing though not as conspicuous.

From the point of view of long-term planning it will, however, be expedient to give a more accurate interpretation of technical progress and also to delimit the concept. First, it is reasonable to separate technical progress from technical development (even if the distinction is somewhat arbitrary). In the following, by technical development we will mean the complex of deliberate actions and decisions within an economic unit, a country, an industry or an enterprise. Technical progress is, however, connected with the worldwide changes in the given level of techniques in a given period and with its development trends determined by the general development of science and economy and which is not (perceptibly) influenced by technical development in a small country.

More important is the problem, what should be considered, from the point of view of our subject, as part of technical progress, of the rise in the technical level. The concept unequivocally includes *the production process (technologies)* and the changes therein, as well as *the product range with its changes (introduction of new products and discarding of old ones)*, that is, what to produce and how — covering, of course, not only industrial but also agricultural production, as well as services. Undoubtedly, here belong also *research and development*, as independent or increasingly independent activities, which yield information used in production, as well as the national and international dissemination of this information material.

In addition, from the point of view of long-term planning, it will be expedient to investigate from the aspect of technical progress the following factors:

— *the production pattern and the resulting pattern of consumption*, as well as the changes therein, influenced also by technical possibilities and the changes in living level;
— *the explored or, rather, the efficiently utilizable stock of natural resources* (mainly mineral deposits);
— *the extent of the (national and international) division of labour, its characteristics and tendencies.*

How can technical progress be characterized in the long-term plan if we accept the above view and the above interpretation?

It should be obvious, right at the start, that the technical level or technical progress cannot be characterized by the aid of any single indicator, neither in respect of the economy or industry as a whole, nor even in that of a single sector. Even for investigating not an economic sector, e.g. an industrial branch, but single product groups or a definite product, it will not be sufficient to use a single parameter or a few parameters only to characterize the technical level unequivocally. Even the usefulness and usability of a product may be characterized by *several* parameters, whose value or ranking mostly differs according to the different uses. Production technology is generally, at least partly, independent of usability, although it may be roughly characterized by prime cost as a synthetic indicator, the individual elements of technology, as e.g. capital or labour intensity or the use of materials or energy may be separately interpreted from the point of view of technical progress. Technical progress is thus a *multi-dimensional* phenomenon; its individual elements, or a certain combination of several elements may be forecast but progress or the whole of the technical level cannot be exactly described or numerically characterized. Nor is this necessary, since from the point of view of planning it is not some synthetic and comprehensive "technical progress" that is of informative value but precisely its certain concrete elements.

Productivity (the productivity of labour) is one of the most important indicators of economic development in general and of technical progress in particular. Its forecasting is justified in long-term planning and also possible — of course with a certain margin of error. Productivity is, however, affected by so many factors, with many non-technical ones among them (as e.g. the general labour situation, employment policy, enterprise incentives, etc.), and there are so many technical factors which do not influence the usual indicators of productivity (as e.g. the quality and up-to-dateness of products, etc.), that it cannot be considered as a synthetic indicator of technical progress either

on the national or the sectoral level. (The labour intensity of definite technical processes is, however, a characteristic element of the technical level and may be generally forecast.) Productivity forecasting of sectors and of the whole economy may provide information for long-term planning from the point of view of the volume and pattern of production and employment rather than in respect of alternative development strategies. Of course, the problems cannot be sharply separated from each other in this field, either.

In the above we have considered the following factors as belonging to the scope of technical progress and to be investigated from the point of view of long-term planning: technology (production procedures), the range of products (new products), research and development (as well as the dissemination of information yielded by these activities), etc. Obviously, the phenomena which actually and concretely determine technical progress do not belong exclusively to one or other of these groups. Technological development may bring about new products and the new products, in turn, may generate new technologies and all that may influence technology and the division of labour, etc. Our classification, which will be employed also in the sequel, serves only the purposes of presentation and easier survey of the problems, and can by far not be considered as final.

In my opinion, from the point of view of long-term forecasting, the phenomena which actually incorporate technical progress — e.g. a definite, entirely new product or some entirely new technology — are relatively less important. It is difficult to forecast 10 to 20 years in advance their coming about when they are not even invented, or the extent and rate of their spread until they are still in the laboratory or experimental stage. In addition, an entirely new or practically unknown product or technology will hardly affect the economy to an extent that it should be given an independent role in long-term planning. The main tendencies arising from the *aggregate* of individual forward steps and improvements which manifest themselves mainly in the form of structural changes (changes in the pattern of production or products, or in technological processes), have a relatively greater importance.

The methodological basis of a long-term prognosis of technical progress is usually a forecasting of domestic and the world tendencies, as well as a comparison of the domestic situation with that in the economically and technically more advanced countries. It is a rare occurrence that some "new technique" still in the laboratory or experimental stage and not yet employed in practice or its spread could be successfully forecast in a way as to be useful for the purpose of economic planning, even in the shorter term. Of course, if research and development are carried out in some capitalist firm, the latter is usually not even interested in making the results of the prognosis public.

It should be noted that although the continuation of earlier trends could be forecast with relatively good results, the *changes in trends* could rarely be

signalized in advance — even in surveys carried out with a large apparatus — though from the point of view of planning this would be the most valuable information. It seems that the change in a trend must be first sensed in practice in order that it may be accepted as a standard for the future.

3. Structural changes

Technical progress manifests itself most generally and comprehensively in the form of changes in structure and may be forecast in this form.

Changes in the pattern of the national economy, though mostly treated from a different point of view, reflect mainly technical progress. As is known, it is usual to divide the economy into three major sectors: primary (agriculture, fishing, mining), secondary (manufacturing) and tertiary sectors. At the beginning of economic development the primary sector dominates from the points of view both of employment and the production of national income. It is a generally observable tendency that with economic development, i.e. with industrialization, first the share of the secondary sector increases rapidly at the expense of the primary one, then, at a relatively high level of development and at an employment rate of about 35—40 per cent of the total, it becomes stabilized (or even starts to decrease) while the share of services is growing.

How is this tendency of structural change connected with technical progress? The basis of economic development is a substitution of traditional and practically unchanged techniques by modern techniques which are continuously improving with the help of science and the application of machinery and chemicals, increasing thereby productivity. This enables the raising of living standards, as a concomitant of which relatively less labour must be used for meeting the prime necessities of life (mainly food) and more remains for "higher-grade" needs (first clothing and then consumers' durables). Thus, due to technological progress, the share of the secondary sector in consumption relatively increases while that of the primary sector diminishes. Later on, even the consumption of industrial products will cease to grow proportionately with total consumption, but the relative share of services (trade, public-health, education, etc.) will increase. In addition, technical progress enables a quicker growth of productivity in material production than in services, that is, with the same volume of consumption the employment necessary for the former will diminish.

It should be obvious that the forecasting of the expected economic structure — where, in addition to the above outlined general tendencies, also other points of view are taken into account — is an important element in long-term planning.

The sectoral pattern of industry and the changes therein are in a similar but more immediate and unequivocal connection with technical progress. The general interrelations are known and do not need any detailed explanation. The main tendency is toward a growing weight of heavy industry within industry as a whole with that of the light (and food) industries diminishing. Within light industry it is primarily the share of textiles that will diminish; engineering and the chemical industries will prove the most rapidly developing and dynamic branches; the share of metallurgy and mining will diminish; moreover, in advanced countries the production volume of the most important branch of the latter, namely coal mining, will decrease even in absolute terms.

In Hungary, between 1950 and 1967 the pattern of industrial production showed the following changes.

Pattern of industrial production in the state-owned industry by volume of output

Industrial group, or branch	Percentage distribution in			
	1950	1960	1964	1967
Mining	10.0	7.8	7.1	6.1
Electric energy	4.2	4.6	4.7	4.9
Metallurgy	13.0	13.9	12.7	12.1
Engineering, total	19.7	25.7	27.4	28.1
Building materials industry	3.2	3.7	3.4	3.6
Chemical industry	4.8	7.4	8.8	10.3
Heavy industry, total	54.9	63.1	64.1	65.1
Wood processing	1.7	2.1	2.2	2.1
Paper industry	0.9	0.8	0.9	1.0
Printing	1.0	0.7	0.7	0.7
Textile industry	11.2	7.7	7.0	7.0
Leather, fur and shoe industry	2.3	2.2	1.9	1.9
Clothing industry	1.8	2.7	2.4	2.4
Food industry	26.1	19.6	19.6	18.6
Other industries, handicrafts, etc.	0.1	1.1	1.2	1.2
Light and food industries combined	45.1	36.9	35.9	34.9
Total of state controlled industry	100.0	100.0	100.0	100.0

Source: Nyitrai Ferencné: Iparunk az új gazdaságirányítási rendszer indulásakor. (Hungarian industry at the start of the new system of economic control and management.) Statisztikai Szemle. 1968. No. 6, p. 577.

This tendency of structural changes is a *general* one and has manifested itself both in the socialist and the developed capitalist countries. The structural trends are similar in the developing countries but there mining — mainly

because of the growth of oil mining — has grown quicker than manufacturing as a whole.

These changes in structure can be traced back directly to technical progress. They are determined chiefly by a dynamic growth of the chemical industry and engineering, with the use of their products steadily growing both in productive consumption (mechanization, automation, information techniques, substitution of man-made materials for natural ones, etc.), and in personal consumption (passenger cars, radio and TV sets, household equipment, consumer goods made of plastics, etc.).

On the basis of analysis performed in the framework of Hungarian longterm planning and relating mainly to the past, a uniform opinion has emerged on the expected changes in the pattern of industry — if not from the quantitative, at least from the qualitative point of view. Accordingly, the forecast based on international comparison may be accepted that *the actual tendency of structural changes will continue to prevail in the next 10 to 15 years* but the rate of change will be slower than hitherto. This prognosis may need correction in the plans mainly in accordance with the possibilities and limitations of foreign trade; in the short run it seems that with the present technical level our export potential in the light and food industries is relatively more favourable than in engineering, while in the development of the chemical industry and metallurgy an important characteristic feature of technical progress, namely, the significant increase in optimum plant size may cause problems, as it does in every small country.

Prognosis of the pattern of energy utilization (and production) is perhaps the field where the greatest amount of both domestic and foreign experience is available. The trend in the pattern of energy utilization is influenced by a great many factors of technical progress. The most important of these are the changes in the available and economically exploitable stock of sources of fuel (natural resources), improved efficiency of fuel utilization, transformation, transportation, growing international trade in and the rational allocation of the availabilities to the various users.

It is not my intention to discuss here in detail the topical problems of forecasting in the field of energy production and utilization. But I should like to point out that prognosis, although an information to be used in long-term planning, is, by no means the plan itself. A prognosis may be worked out on the basis of international comparison and general tendencies, but from the plan we will expect more, namely an economically efficient structure which is optimal from the national economic point of view. We have already some domestic experience in working out a pattern of this type. If the energy needs of the major users (user groups), the domestic production facilities, as well as the import possibilities — i.e. the sources of energy to be used and the costs connected with the production, purchasing, utilization and

transformation of energy, perhaps also some investment and foreign exchange quotas (upper limits) — are known, either on the basis of a well-founded plan or on that of some prognosis, then the optimum structure of production and allocation to the various users can be worked out with the aid of (linear) programming. The National Technical Development Board has been performing such calculations for some years and has rendered energetics, and particularly the most efficient allocation of energy to the various users, one of the scientifically best founded elements in long-term planning.

To illustrate the interrelations between technical progress and changes in structure, we will briefly discuss a further industrial and a non-industrial example.

There is a definite interrelation between the *structure of metallurgical production* and the technical (and economic) development level, with the structure of utilization changing with technical progress in a definite direction, although not to an easily definable extent. As regards this change, it is a generally known fact that with technical progress the share of flat sections (mainly plates) and that of high quality and alloyed steels within total utilization will increase.

However, on the basis of Imre Korán's excellent study[1] we are in a position to say somewhat more about these internal relationships. The study distinguishes three phases of development. At the beginning of development, the share of mines, roads, railways and of building in steel consumption is high, in the second phase the share of productive equipment (vehicles and engineering products) grows, that of the former uses relatively diminishes; finally, in the last phase, the share of consumers' durables (inclusive of passenger cars) increases. The study characterizes the three phases with an annual per capita steel consumption of 100, 300 and 600 kilograms, and gives the proportion of steel used in the production of consumer goods as 10, 30 and 50 per cent, respectively, for the three phases.

The main directions of utilization characteristic of these periods determine also the structure of the steel types used. Demand for rails, various profile steels and bars decreases since buildings and technical structures need mainly reinforcement steel, girders with various profiles, rails, pipes; productive equipment and vehicles require mainly bars, pipes and flat sections; consumers' durables again flat sections and fine sheets. The share of flat, strip steel and plates increases as a consequence not only of changes in the relative importance of the various categories of steel users but also as a result of improving technology. In this respect, on the one hand, the progress in welding methods is significant, enabling as it does welded structures to replace steel castings and welded pipes to be substituted for rolled pipes, etc., and, on the other hand, cold technologies are also growing in importance since steel profiles may be advantageously replaced by sections formed from strip steel.

In this field, forecasting of structural changes is of even greater importance than in the case of the structure of energy utilization, because it is more difficult to plan the utilization of metallurgical products by major users (or groups of users) for the long term.

The pattern of agricultural production and within it that of plant cultivation and animal husbandry has also shown a relatively rapid change in the past one or two decades. The changes in structure have also a role in the growth of the value of output.

Plant cultivation has become more intensive, the share of production on arable land and on meadows and pastures has fallen between the years 1938 and 1966 from 83 to 75 and from 5 to 3 per cent, respectively. Also plant cultivation on arable land has become more intensive, the share of more labour-intensive produce (maize, vegetables, sugar-beet) has increased at the expense of bread grain. The change does, of course, correspond to the pattern of demand and was made possible by technological development (the use of fertilizers and increased mechanization). At present, however, the structure may be considered as stabilized and no considerable changes can be expected in the major structural proportions of plant cultivation.

The pattern of animal husbandry has similarly changed. Although this is partly due to a decrease in the number of draught animals, which is a concomitant of mechanization, the picture will be similar even if horses are excluded. Thus, the share of cattle in total livestock fell from 71.5 per cent to 61.5, while that of pigs increased from 20.0 to 27.2 per cent, that of sheep from 5.0 to 7.0 and of poultry from 3.5 to 4.3 per cent by the end of 1966 as compared to the 1934—1938 average. The main causes of this structural change are the many difficulties — partly of a technical character — connected with increasing the stock of cattle, owing to which the growing demand for meat could be met only by increased pig and poultry breeding. According to the experts, the changes in structure will be of a lesser importance in future.[2]

4. Changes in technologies

The technologies used in the various branches of the economy and in the individual industries are most diversified. It is for this reason that it is difficult to form such comprehensive groups which would be sufficiently meaningful for use in long-term planning — although the experts in the individual branches may be able to give a well-founded opinion about the expectable changes or, at least, about whether the scope of some procedure is likely to expand or contract.

As a first experiment it is conceivable to forecast the trend of two groups of indicators which generally characterize the technology.

Fixed capital requirements. The tendency of the technological equipment of labour, that is, the indicator of the volume of fixed assets *per worker* shows an unequivocally rising trend. As regards the volume of capital needed for a unit of output, — the capital /output ratio — the situation is different, since new technology often saves not only labour (increasing productivity) but also capital. Such is the effect, e.g., of increasing the scale of production, and, generally, of the intensification of processes. In other cases, however, the price to be paid for growing production and productivity is an increasing specific demand for capital, e.g. in the case of considerable infrastructural investments.

As regards the tendencies to be expected, opinions vary. From the investigation of long international (mainly American) time series, some research workers have drawn the conclusion that — according to a generally prevailing tendency — the capital/output ratio first grows in the course of economic development and begins to diminish at a higher development level.[3]

Another study prepared under the guidance of the National Technical Development Board[4] has — on the basis of theoretical considerations and the examination of the interrelations by means of a mathematical model — established the fact that in *engineering* industries the capital/output ratio will grow up to a certain stock of machinery and equipment per worker and will start to diminish once this point is reached. According to this analysis in Hungary this quotient is still in the deteriorating i.e. growing phase, a situation that is likely to prevail for a period of considerable length to come.

According to other opinions — which do not rely on similar scientific analysis, only on a certain generalization of phenomena observable in the economy — the deteriorating indicators of fixed asset utilization in the past do not reflect some law of technical or economic development but were a characteristic of the "old" mechanism (when investment funds were allocated free of charge and were not repayable), or due to inadequate organization and programing, sometimes to shortage of materials, etc. There are thus large reserves which can and should be mobilized in the future, as can be expected under the new mechanism. Fixed asset requirements obviously constitute a decisive factor from the point of view of the long-term planning and can — in so far as the changes therein are determined by technical progress — even be forecast. However, the bulk of research work in this field is still before us.

Statistical observation of the past trends in *material input coefficients* as well as interpretation of the interrelations from the point of view of technological progress is possible in a more direct manner. Therefore, also prognosis seems to be an easier task here — at least as regards relatively homogeneous processes and mass products which are of primary interest from the point of view of long-term planning.

As regards e.g. the development of energy utilization, there can be observed some lasting trends. Between 1960 and 1966, specific input of electric energy decreased regularly and to a considerable extent in the production of aluminium, caustic soda, woodpulp; similar tendencies manifest themselves in the case of coke used in steel metallurgy and steam used for the production of alumina. On the other hand, the electric energy consumed in turning out a ton of coal or bauxite has increased.[5] An analysis of the changes and their causes, combined with international comparisons, will in most cases enable forecasting for a rather long period of time.

Changes in plant size (concentration) are a most characteristic and, from the point of view of long-term planning, a basic element of technological progress. The past trends in this field are sufficiently well known and it may be assumed, in general — if not for all branches — that these trends will continue to prevail. They are, however, not identical in the various sectors. Considerable growth in plant size is characteristic of the sectors where basic technology is continuous and homogeneous, and where production takes place with the aid of a single or but a few large units of equipment and involves generally the moving of great quantities of material. Such are e.g. metallurgy, the production of woodpulp, certain branches of the heavy chemical industry, the production of electric energy. In industries, however, where a growing scale of production is not a consequence of the growth in basic equipment but of the placing side by side and the parallel operation of a great number of machines, large plants do not dominate to the same extent — although they do exist — and even in the industrial countries the small and medium-sized plants have not lost their relative importance. Of course, in this sector, too, large plants certainly have their advantages; it appears, however, that small and medium-size plants can counterbalance these advantages with their greater flexibility and ability to adapt to changing conditions.

Comparing the domestic plant sizes with those in advanced (Western) industrial countries we find that in the first group, where large size dominates, the domestic plant size is, due to the extent of the domestic market, relatively small, frequently even in such cases where the entire production is carried out in a single plant. In other industries — particularly in textiles and food, but to some extent also in engineering — the average size of domestic plants seems to be large by international standards, and it is mainly the small and medium-sized plants that are missing.

Let us mention in this connection only one example. The plant size considered at present as most efficient and up-to-date in ferrous *metallurgy* exceeds, according to both literature and expert opinion, several times not only the actual size of domestic plants but the capacity needed for the country's entire present-day production and even for that to be expected in the next 10 to 15 years. The annual domestic output of liquid steel is about 2.6 million metric

tons; it is planned to be raised to 4.6 million by 1985. According to other data, annual domestic requirements of steel (mass products and high quality steel together) amount to 4.55 million tons, corresponding to 3.55 million tons of finished product.[6] The metallurgical plant size *now* considered optimal is about 3—5 million tons p. a. According to another source of information: "At present the rational scale of production of single-purpose plants can be characterized by a capacity of 3—4 million tons. But already 4—6 million tons have been set as a target when planning new steel works. In the Soviet Union, however, it is envisaged to process 13—14 million tons of steel in a modern, universal metallurgical combine." It is characteristic of relative efficiency that in Hungarian metallurgy one worker produces and processes 55—60 tons of steel in a year, in the Fed. Rep. of Germany 155 tons, and in the up-to-date Soviet and American plants 300—500 tons.[7]

5. Natural resources and the division of labour

As regards the changes in the efficiently exploitable reserves of natural resources, two characteristic tendencies may be observed and are likely to continue in the future, at least in the fields discussed above in some detail, namely power economy and ferrous metallurgy.

The known and exploitable hydrocarbon reserves of the world are rapidly increasing — obviously as a result of ever improving prospecting and exploitation techniques. This applies both to the traditional oil and gas fields, and to the new ones (near the North Sea in Europe, in Alaska in North America). Thus, there will be no obstacle to a further growth in the use of hydrocarbons on a world scale — either in absolute or relative terms.

The raw material, or, more exactly, the iron-ore bases of ferrous metallurgy are gradually shifting from the traditional areas (Europe, North America) to the developing countries which supply old and new consumers with cheap, high-quality and concentrated ores. Owing to the transportation of ore by sea, the advantage of processing plants near the sea has increased and new big metallurgical combines have been and are being built near the ports, particularly if, at the same time, also large users of steel are near. It is very likely that Japan's advance in a relatively short time to the third place in world steel production behind the USA and the USSR — in spite of the lack of domestic ore deposits — may be attributed to this fact. Partly owing to the existence of the overseas ore bases, it may be reckoned with that metallurgical production in the developing countries will rapidly grow and while today for the major part of their needs they still have to rely on imports, in one or two decades they will become on the whole independent of foreign resources. However, within global self-sufficiency, they will export simple material-intensive products and continue to import the products necessary for general develop-

ment and particularly for the engineering industry, and requiring more sophisticated techniques and skills.

Division of labour and specialization are undoubtedly growing with technical progress, both within the individual countries and on the international level, as well as between the branches within the individual sectors. The tendency is unmistakable, though its reasons and concrete forms of appearance may differ. It can be shown without any difficulty that in this country the division of labour is too restricted both between the domestic enterprises, and particularly on the international level. It is thus warranted to devote special attention to the perspectives of long-term development from this point of view.

The advantages derived from the growing scale of production are only one reason for increasing specialization and cooperation. At least as important is an improved utilization of research and development resources which can be better concentrated in this manner, furthermore the necessity of technical and production coordination between various enterprises, which is e.g., the basis of what is called the vertical integration of agriculture and the food industry (as it is not immaterial what are the parameters of the agricultural product to be processed, and when, at what time, it can be processed). It is an increasingly frequent case that connections are becoming closer than usual between buyer and seller on the market and tey change into permanent technological and production relationships; the various sectors and the markets of the individual products become integrated.

To quote an example from our country: the progress in construction will depend at least as much on external industrial deliveries as on the solution of problems emerging within the building trade itself. A considerable part of these deliveries consists, however, not of standardized products which can be simply and unequivocally defined — although they include also goods of this type — but of products requiring the joint solution by the user and supplier of more complicated technical problems (special steel structures, or the climatic conditioning of great administrative buildings) in order to build cheaply and quickly.

All these phenomena are, of course, related not only to technical progress; however, among several factors this is undoubtedly the most decisive and the one which determines the major tendencies of the future.

6. Some complementary remarks

In the preceding paragraphs we have not discussed all aspects of technical progress. We have been dealing here only with the forecasting of technical progress as an aid to the central decisions important from the point of view of long-term planning. Even if we accepted that such an approach to

the problems was justified, there remain many partly controversial and partly unsolved problems, some of which should be raised in the following.

The first question is — and this determines at the same time also the elements of forecasting technical progress which are relevant from the point of view of long-term planning — what should the long-term plan comprise, how detailed and definite it should be. In the present stage of planning, it would be difficult to answer this question in general and even more difficult to give a concrete answer, — instead, some basic points may be indicated. The preparation of decisions whose effects (or neglect) would make themselves felt for a longer period than that covered by the medium-term plan (5 years), belongs in any case to the scope of long-term planning. Cases in point are, e.g., investment projects with an extremely long gestation period, energy policy, many problems of the infrastructure, development of education, particularly of higher education, etc. The problems which can be satisfactorily settled in the framework of and the period covered by the five-year plan, such as most of the production and investment problems in the manufacturing industries, do not belong to the scope of long-term planning. Although it may be both worthwhile and justified to work out concepts also for this set of problems, these should be of an informative character only, in the form of alternatives and without requiring decisions with a long-term effect. In the opposite case the plan would become not only too complicated but rigid and cumbersome and would render it difficult to effect changes becoming necessary at some later date.

On the basis of the above, it does not seem indispensable to include detailed forecasts concerning research and development as autonomous activities in the long-term plan, although it is obvious that they constitute a fundamentally important element of technical progress, with the inputs serving these purposes showing a tendency to grow not only in absolute terms but also relative to the national income. But the expectable growth of inputs which in 1965—67 amounted to 2.3 per cent of national income[8] is surely between the margin of error of long-term national income calculations. (It may, on the other hand, be justified to account separately for the training of research and development personnel in the long-term planning of qualified manpower.) Of course, the effects of research and development activity on technical progress and on the whole economy are much more important than the inputs into research. The interrelations are, however, so complicated that it is hardly conceivable to assess them for the *long term*, at least we do not know any long-term prognosis which would be sufficiently concrete, although from the logical point of view it should be obvious that basic research, applied research and development, and new techniques are different phases of an interrelated process.

This does, of course, not relate to the planning of research activity in general, which presents a set of problems independent from long-term progno-

sis. The medium-term plans, e.g. should comprise the inputs into research and development in detail and there is also a possibility to account in them — at least partly — for the effects of research activity.

In the foregoing, no mention has been made of new products nor of the changes in the product range. In my opinion, this also is primarily a problem for medium-term planning, although I assume that in certain fields, e.g. in the case of automation or computer techniques, also long-term forecasting may be both possible and justified.

The spread of new techniques is sometimes characterized by distinguishing from each other the traditional, the developing and the modern branches of production. The question arises, whether the forecasting of technological progress from this point of view is not necessary or whether prognosis should not be made at least for the modern branches.

It is customary to delimit the three groups of production branches on the basis of their respective growth rate. The branches termed traditional are those where the rate of development does not attain the average growth rate of industry (e.g. in iron-ore and coal mining, ferrous metallurgy, the production of traditional building materials); the developing branches are those where the growth rate corresponds to the industrial average or exceeds it to some extent (the production of domestic appliances and cars, the chemical, plastics and rubber industries) and the modern branches are those connected with the latest discoveries in space research, rocket techniques, atomic techniques, the war industries (including electronics and computers, the special chemical and metallurgical industries, precision engineering).[9]

However, this delimitation, which correctly calls the attention to a certain aspect of development, may be misleading from the point of view of long-term planning. E.g., according to the above definition, the production of electric energy is a modern industry since — at least between 1950 and 1966 — it developed at a much quicker rate than industry as a whole. But also the paper industry is a developing one, or was one between 1960 and 1966, in the advanced capitalist countries for it attained the average growth rate of industry. Relative growth is not independent of space and time (viewed from the point of view of the growth rate, metallurgy has been definitely dynamic in the developing countries ever since 1950).

Similarly, it is usual to distinguish these three groups of industry on the basis of the research costs and the profit rates which are, allegedly, low in the traditional industries, higher in the developing ones, etc. As regards research costs, this may be so, but as regards the rate of profits the statement is open to doubt. Besides, both data are liable to rapid change and difficult to check.

There is a further reason why this classification cannot be used in long-term planning: it is not the *industry* that is traditional, developing or modern, that is, rapidly growing and having favourable marketing possibilities, but

certain products or product groups within an industry. Certain branches of electronics and precision engineering will rapidly grow in the future but the future development of the production of radio and TV sets or of mechanical measuring instruments is doubtful. The problem of traditional, developing and modern production should, therefore, be investigated not in the framework of changes in the structure of industrial branches — although this aspect must not be neglected either — but rather from the viewpoint of the changes in the product-mix and its effects.

It will perhaps be worth-while to raise here a further problem connected with the so-called "modern" branches of production. The real economic usefulness of their products will — particularly in a small country which cannot play a great role in progress or have a wide production range — manifest itself not in production but in utilization. It is characteristic of these goods that they are in their major part not final products — consumer or investment goods — but important elements of the latter, instrumental in increasing utility, diminishing prime costs and raising productivity, so that technology becomes more up-to-date with their aid. The main problem, therefore, consists in how to use these products (electronics, automation elements, new chemical products) in the best way, to further thereby development of domestic techniques (technology). This will provide also a basis for the profitable export of the final product. It will, of course, also be necessary to have a certain domestic basis of production and for the viability of the production basis a certain export of the modern elements, too. The forecasting of expected technological progress is of decisive importance in this field, leading up as it does directly to the policy of technical and economic development and to an even broader problem: that of rational international cooperation both in production and technical development.

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ДОЛГОСРОЧНОЕ ПЛАНИРОВАНИЕ И ТЕХНИЧЕСКИЙ ПРОГРЕСС

Д. ЦУКОР

Долгосрочное планирование — относительно молодая отрасль планирования, важнейшая задача которой заключается в разрешении проблем, вытекающих не из настоящего положения, а из его изменения. С этим связано и то обстоятельство, что долгосрочное планирование содержит гораздо больше элементов прогнозирования, чем планирование на более близкую перспективу (например, на 5—7 лет). Одним из таких важных элементов является технический прогресс.

Долгосрочное планирование требует нового подхода к проблемам технического прогресса как с методологической точки зрения, так и в отношении их содержания. В этой связи целесообразно различать понятия технического прогресса и технического развития, так как последнее представляет собой комплекс сознательных действий и решений, в то время как первый определяется общим развитием науки и экономики. К техническому прогрессу автор относит развитие технологии, изменение ассортимента изделий, а также научно-исследовательскую деятельность. Методологическая основа прогнозирования технического прогресса — это предначертание основных тенденций, следующих из совокупности технических усовершенствований. Однако и в этом отношении легче прогнозировать продолжение уже проявляющихся тенденций, чем их изменение.

Технический прогресс в наиболее общей и всеохватывающей форме проявляется и поддается прогнозированию в виде структурных изменений. Причем к ним относятся не только изменения народнохозяйственной и отраслевой структуры промышленности, но и изменение пропорций производства (или потребления) в более узких секторах или в отношении отдельных товарных групп. Автор подробнее рассматривает структурные изменения и их прогнозирование в области потребления энергии, в черной металлургии и в сельскохозяйственном производстве.

При прогнозировании технологических изменений следует изучить динамику фондоемкости, коэффициентов расхода материалов, а также изменение масштабов производства.

Дальнейшие важные факторы, влияющие на технический прогресс и обязательно учитываемые при прогнозировании, — это изменение экономически эффективно используемых природных ресурсов, а также несомненно растущее вместе с техническим прогрессом внутреннее и международное разделение труда и специализация.

В заключение автор останавливается на некоторых, еще не полностью разрешенных проблемах, как например, на вопросе детальности долгосрочного планирования. В связи с этим он считает возможным отказаться от подробного прогнозирования научно-исследовательской и прочей, связанной с развитием деятельности. Кроме того, по его мнению, при долгосрочном планировании нет необходимости различать традиционные, развивающиеся и современные производственные отрасли и, вообще, исходить из производственных отраслей, так как более существенным является подход со стороны продукции — отдельных продуктов и товарных групп, то есть следует исследовать изменение ассортимента изделий.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (3), pp. 259—267 (1969)

P. Bod

ON A POSSIBLE MATHEMATICAL MODEL OF LONG-TERM (15—20 YEAR) NATIONAL ECONOMIC PLANNING

The paper presents a model system which may have an important role to play in the realization of the central function of long-term planning as a tool of control, organization and coordination in the national economy. The concretization of the model is now in course in the National Planning Office, in parallel with the elaboration of the general methodological requirements of the 1970—1985 long-term economic plan.

I.

Long-term planning is still in its experimental stage all over the world; no developed or tested methodology has so far emerged, nor are there any experiences which could be evaluated in their domestic or international interrelations. The utilization of mathematical models for the purposes of long-term planning is even more in the initial stage. No models to suit the purpose have so far been generated anywhere that would have "stood the test". Thus, in the domestic practice, too, experiments will have to be made in this field.

In this paper, too, an experimental model will be described. In order to make it clear to the reader why we propose exactly this type of model, let us start with an attempt to outline the most important economic requirements and ideas which justify the fundamental concept of the model. These considerations motivate the major characteristics of the model which will determine what the model is able to "perform" and how it can fit into the whole system of long-term planning.

On our part, we conceive of the long-term plan of the national economy as *a tool of formulating the strategy of the government's economic policy*. From this it follows, first of all, that the long-term plan cannot be confined to prognosis about the conceivable courses of economic development. It must also comprise the elements of suitable decisions to be taken by central authority: the elements of decisions which will create the preconditions for the realization of the course of development considered as desirable. At the same time, the long-term development of the national economy will not depend exclusively on the decisions of central authority. The internal and external circumstances of economic development have certain *trends of their own* which depend only

to a small extent or not at all on the decisions of economic policy. Forecasting of these trends is highly uncertain. A possibility must, therefore, be found in long-term planning for changing in a flexible manner the development strategy once established so as to adapt it to any new information that might be obtained about the trends in development possibilities and conditions.

All planning experiences gained up to the present have shown that neither the detailed assessment and analysis of necessary and possible development in the individual fields and spheres of social reproduction, nor the disclosure and comparison of the various possible development alternatives can be successfully carried out by the central planning agencies of the national economy. No proper information is, or can indeed be "available" on this level. Therefore, and also because of the actual production relations prevailing in our economy (which have been formed in the course of the reform and are still in formation) it is necessary and right to base the long-term national economic plans on the *sectoral development concepts*. However, the sectoral concepts are necessarily formulated to a certain extent independently of each other, parallelly to each other. Therefore, for the central planning agency the fundamental task of long-term planning presents itself in the form that the individual sector concepts must be united into a *single development strategy*, *consistent* and *efficient* from the point of view of the economy as a whole.

The aim is to build a *suitable mathematical model* that can be applied for this central function of long-term planning. Thus, the emphasis lies on coordination, on finding an equilibrium of the economy, and on the comparison of the efficiency of the various possible development paths.

It follows that in order to answer the above requirements, the mathematical model must (whatever its concrete structure and content) show the following main characteristics:

1. It must represent a system of a high degree of freedom, expressing the objective circumstance that, in the long term, society has a variety of possibilities in forming its economic objectives.
2. It must explicitly comprise the most important internal economic interrelations of extended social reproduction since these interrelations constitute the most important internal limitation to all types of economico-political decision.
3. It must provide in some form for the possibility to account for circumstances which do not, or hardly, depend on our own decisions, since these circumstances constitute the most important external limitation to our decisions.
4. It must enable a manysided variation of the initial assumptions. This is necessary because of the uncertainties of forecasting and for a flexible adaptation to new information.

5. It must also provide orientation for the individual subperiods of the longer (15—20 year) period, enabling an examination of the coordination of development of the sectors with different growth rates, and the variation of development in the course of time.
6. It must be in connection with sector planning, absorb the information obtained from the sector concepts, and supply correction viewpoints to sectoral development planning.

Obviously, beside the special requirements listed above, the general requirements of generating a model, without which no model is capable of functioning, must be also met. This means that the model can comprise only such data as are available or can be procured; it must be suitable for operation both from the mathematical and the computational points of view, and its results must be interpretable in conventional economic terms.

II

For the purposes outlined above we propose a multiperiod programming model, aggregated on sector level and operating with continuous linear variables. Such a model will recall to everyone the optimization computation based on linear programming. To avoid possible misunderstandings, it will be, perhaps, not unnecessary to point out that in spite of the model's form it is not intended here to work out with its aid some "optimal" variant of the long-term development of the national economy, nor to describe the processes of reproduction as strictly linear ones.

The backbone of the model is the *system of constraints*. Mathematically, this is a more or less complicated system of equations of relatively large size, whose non-negative solutions correspond to some consistent long-term strategies. Since the system of equations has — not accidentally — a great degree of freedom, it will be expedient to examine its extreme solutions from various points of view. Technically, this aim is achieved by optimization, by seeking to find the most favourable solutions with objective functions of various contents.

The model is thus an experimental tool with the aid of which consistent national economic development conceptions can be "generated" or the mutually exclusive, contradictory character of certain assumptions can be demonstrated in a relatively short time on the basis of various sectoral conceptions, various ideas about the expectable trends in external circumstances and various targets of economic policy.

The model operates with coefficients changing over time and is thus not linear in the strict sense of the word but *approximating non-linear relationships in a linear way*. The variables of the model are aggregates of sectoral activities

based on concrete sectoral concepts. The model's input coefficients are determined by the concrete conditions of these concepts.

Sector planning supplies thus the model mainly with the "technological coefficients" representing the aggregate activity of the sector concerned. As an answer, the model will turn out aggregate activity levels. Obviously, these will generally differ from the activity levels which served as a basis to determine the coefficients for sectoral planning. Therefore, between planning on the sector level and the central coordination of the plans, "compromising" must take place which is realized in an iteration process. On the level of the coordinating model, this "compromising" will take the form of a correction of the input coefficients.

Various methods may be conceived of to work out the sectoral concepts. It is, obviously, desirable that the quantification and formulation of the concepts should become based on mathematical models in an increasing number of sectors. However, this is not a condition of the operation of the coordinating model. For the purpose, it is sufficient to secure the unity and logical framework of the conceptual and accounting system of planning in the various sectors. This, in turn, is an absolute condition of reasonable plan coordination in any case, the ensuring of which is necessary, independently of the fact whether plan coordination is based on a mathematical model or not.

III

The productive sphere of the national economy is imagined as being broken down into n sectors releasing homogeneous aggregates, with plans made for N periods of equal length. The situation of the economy at the beginning of the plan period is characterized by the available stocks, the size of gross productive capacities of the sectors, and the external resources at disposal in the first period (which cannot be reproduced within the model). There are m external resources in the model. An external resource is, e.g., labour (which may be broken down into several classes), the cultivable land area, water resources, etc. But here belong also the aggregate constraints of export and import possibilities (e.g. the total volume of raw materials procurable from socialist countries, in terms of roubles). The volume of the external resources must be established for each plan period on the basis of external information, outside the model, or planned on the basis of certain initial conceptions.

It is obviously not possible to make an unequivocal estimation of the volume of the external resources, nor is this volume independent of basic political or economico-political conceptions. The volume of labour available for the economy is affected not only by demographic trends largely beyond our control but also by such factors as e.g. the planned measures to shorten working hours or the general concepts of employment policy, etc. Similarly, the

foreseeable possibilities of exports to capitalist countries depend not only on world market trends — themselves difficult to forecast — but also on our own international trade policies and our own evaluation of the expectable development of the international situation. Thus, the part of the system of constraints which comprises the external conditions, contains also several *"political" and "economico-political" parameters*. Its main role consists in securing the harmony of the long-term plan with conditions outside the narrowly interpreted sphere of reproduction. The model comprises two balances of payments for each period, separated from the external conditions. (There is no obstacle to introducing balances of payments in several relations.) The balances serve the purpose of taking into account in rough outlines the equilibrium of trade. A separate treatment of the balances is justified by the fact that they have slack variables with undefined sign ordered to them. This means that the model does not exclude beforehand an increase in the volume of active or passive credits, whereby a further important "political" parameter is introduced.

The technological pattern of the productive sphere is characterized in each period by the two matrices $\mathbf{A}^{(t)}$ and $\mathbf{B}^{(t)}$, with the elements

$a_{ij}^{(t)}$ input originating from the i-th sector per unit output of the j-th sector in the t-th period,

$b_{ij}^{(t)}$ single input originating from the i-th sector necessary to create unit capacity in the j-th sector in the t-th period.

In addition, every activity in the model may be linked with external conditions; the coefficients relating to the external conditions are comprised by matrix $\mathbf{C}^{(t)}$.

For each period of the plan, let us define the following non-negative variables:

gross production by sectors in the t-th period: $\mathbf{x}_t$
capacity increase by sectors in the t-the period: $\Delta \mathbf{x}_t$
exports by sectors to capitalist markets in the t-th period: $\mathbf{e}_t^k$
exports by sectors to socialist markets in the t-th period: $\mathbf{e}_t^s$
imports by sectors from capitalist markets in the t-th period: $\mathbf{i}_t^k$
imports by sectors from socialist markets in the t-th period: $\mathbf{i}_t^s$
inventories at the end of the t-th period: $\mathbf{s}_t$
personal consumption in the t-th period: $\mathbf{y}_t$
public consumption in the t-th period: $\mathbf{z}_t$
unutilized capacities by sectors in the t-th period: $\mathbf{v}_t$
unused external resources in the t-th period: $\mathbf{w}_t$
dollar surplus (deficit) in the t-th period: δ_t
rouble surplus (deficit) in the t-th period: ϱ_t

(All vectors have n elements, with the exception of $\mathbf{w}_t$ which has m elements. δ_t and ϱ_t are variables unrestricted in sign.)

In addition, the following notations will be used:
initial capacity at the beginning of the plan period: $\mathbf{K}_0$
initial inventories: $\mathbf{s}_0$
capacity of external resources in the t-th period: $\mathbf{k}_t$
balance of dollar payments in the t-th period: D_t
balance of rouble payments in the t-th period: R_t
export and import prices in the t-th period:

$$\mathbf{p}_{ek}^{(t)*};\ \mathbf{p}_{es}^{(t)*};\ \mathbf{p}_{ik}^{(t)*};\ \mathbf{p}_{is}^{(t)*}$$

With the aid of the above notations, a system of constraints consisting of four blocs is derived for each plan period. Three of these blocks contain predominantly variables relating to the given plan period, namely:
the bloc expressing the equilibrium of reproduction in the plan period

$$\mathbf{s}_{t-1} + \mathbf{x}_t + \mathbf{i}_t^k + \mathbf{i}_t^s = \mathbf{A}^{(t)}\,\mathbf{X}_t + \mathbf{B}^{(t)}\,\Delta\,\mathbf{x}_t + \mathbf{e}_t^s + \mathbf{e}_t^k + \mathbf{y}_t + \mathbf{z}_t$$

the bloc prescribing the fulfilment of external conditions:

$$\mathbf{C}^{(t)}\,\mathbf{X}_t + \mathbf{w}_t = \mathbf{k}_t$$

where:

$$\mathbf{X}_t = \begin{bmatrix} \mathbf{x}_t \\ \Delta\,\mathbf{x}_t \\ \mathbf{e}_t^k \\ \mathbf{e}_t^s \\ \mathbf{i}_t^k \\ \mathbf{i}_t^s \\ \mathbf{y}_t \\ \mathbf{z}_t \end{bmatrix}$$

The balances of payments:

$$\mathbf{p}_{ek}^{(t)*}\,\mathbf{e}_t^k - \mathbf{p}_{ik}^{(t)*}\,\mathbf{i}_t^k + \delta_t = D_t$$

$$\mathbf{p}_{es}^{(t)*}\,\mathbf{e}_t^s - \mathbf{p}_{is}^{(t)*}\,\mathbf{i}_t^s + \varrho_t = R_t$$

In addition it must be taken into account that production possibilities are limited in each period:

$$\mathbf{x}_t + \mathbf{v}_t = \mathbf{K}_0 + \sum_{j=1}^{t-1} \Delta\,\mathbf{x}_j$$

and it is this bloc of constraints which connects the activities taking place in the plan period under examination with the development achieved in the preceding periods.

As can be seen, in each period there are $2n + m + 2$ constraints in equation form, a total of $N(2n + m + 2)$ for the whole plan period.

The number of variables per period is $10\,n + m + 2$

The total number of variables is $N(10\,n + m + 2)$

Obviously, the model outlined has a great degree of freedom, owing to the fact that for each period the value of at least $8\,n$ variables can be freely chosen within the bounds of the constraints.

The variables of the model can easily be identified in contents with the traditional economic indicators; the system of constraints is thus suited for the examination of the consistency of sectoral plan proposals. Because of the model's finite time horizon, the last plan period has a special additional constraint. As a matter of fact, should we omit compulsorily to prescribe that capacities must be expanded also in the last period, in the calculations to be reviewed later this activity would automatically be reduced to zero by the model, since the "usefulness' of this activity could not be sensed by the model as it would appear only in a period beyond its scope. The constraint

$$\Delta \mathbf{x}_{N-1} - \Delta \mathbf{x}_n \leqq 0$$

ensures in a suitable manner that productive investment in the last plan period should not fall below an earlier established level.

IV

The model's system of constraints can, on the one hand, serve the purpose of checking the equilibrium between conditions changing over time and, on the other hand, be used for generating a wide scale of long-term development concepts by means of optimization calculations applying different objective functions. The determining of basic political and economico-political concepts and assumptions for the plan period is possible by assigning certain values to the variables and by indicating the capacity data of the so-called external resources. Preliminary decisions concerning part of the variables will naturally reduce the system's degree of freedom. Lifting the bounds or changing their value will, however, enable a comparison between the effects of the various political and economico-political assumptions.

On the basis of the set of feasible solutions determined by the model's system of constraints it is possible to work out the extreme solutions belonging to the extreme values of objective functions with various economic contents. The various types of objective function and variations in the treatment of the time horizon and the time factor in the objective functions of the same type provide further wide possibilities for the quantification of the most varied assumptions of economic policy and for comparing their effects. The almost

unlimited possibilities for combining the types of constraints and objective functions ensure an easy adaptation of the model for the analysis of the most diverse concepts. For the purpose of basic calculation the combined application of a constraint policy expressing three different approaches and of three types of objective function pointing to different directions seems to be purposeful. The types of constraint could be the following:

A: the growth of personal and public consumption is in each period bounded from below;

B: capacity growth is in each period bounded from below;

C: both consumption and capacity growth are in each period bounded from below.

The objective functions to be used could be the following:

I. Maximization of additional personal and public consumption;
II. Maximization of capacity increase;
III. Minimization of total productive labour input.

The three types of constraint and of objective function determine nine basic calculations.

The basic data of the model are derived from an information system relying on the input-output table. However, since the model covers a long period, we must insist on determining by means of special methods the coefficient matrices varying by periods. To employ identical coefficients for the whole period would not be reassuring.

It will be expedient to use two parallel ways to work out the data needed for the model. The main method must be to determine the coefficients on the basis of the sectoral development concepts. This is the only way to secure that the model becomes a really efficient tool in coordinating the sectoral concepts. Formulation of the coefficients by relying on sectoral concepts may, however, also lead to errors due to both the accumulation of inaccuracies in planning and to tendentious distortions. Therefore, the forecasting of coefficients with the aid of statistical methods will also be necessary. The two types of approach may clarify the delicate points where special investigations are necessary to work out data which can be safely used.

The size of the model depends on the sector breakdown, the number of external resources and the number of periods. In the beginning, it seems expedient to define about twenty sectors, ten external resources and four periods. Thus, the entire model will comprise slightly more than 200 constraints and about 850 variables. Tasks of this size can be easily handled by the available computers. The coefficient matrix of the constraint system is not dense, with the positions with non-zero elements not exceeding 10 per cent.

The interpretability of the results yielded by the model could be greatly increased if it were possible to employ a greater breakdown as regards both sectors and periods. This would rapidly increase the dimensions of the problem. Soon, dimensions would be reached where solution in one step could not be hoped for because of the limitations of computing techniques.

However, if we take into consideration the special structure of the model, it will immediately strike us that it is easy to decompose. By using variables of inventory changes, instead of the inventory stocks, it will be possible to reduce the model's constraints comprising variables valid for more than a single period to $(N - 1)n$. The model can thus be decomposed into period models and a capacity model expressing the intertemporal connections between the periods. Since the former are — even with an increased number of sectors — only of modest size, it will become possible to employ a highly detailed model system provided that the computing-technical conditions of handling the system with the aid of decomposition methods can be secured.

ОБ ОДНОЙ ВОЗМОЖНОЙ МАТЕМАТИЧЕСКОЙ МОДЕЛИ ДОЛГОСРОЧНОГО ПЛАНИРОВАНИЯ (НА 15—20 ЛЕТ) НАРОДНОГО ХОЗЯЙСТВА

П. БОД

В статье представляется модель, предлагаемая для применения при осуществлении центральных функций долгосрочного народнохозяйственного планирования — управления, организации и координации.

В модели предполагается, что для перспективного развития различных отраслей народного хозяйства имеются детальные концепции, разработанные, в основном, независимо друг от друга, на основании которых можно ориентировочно определить ожидаемые изменения в структуре затрат и выпуска отдельных отраслей.

На основании информаций, содержащихся в отраслевых предложениях по развитию, и оценки экзогенных условий и возможностей глобального развития народного хозяйства при помощи модели можно изучить, можно ли объединить и, если да, то с какой эффективностью предложения различных отраслей по развитию в единый взаимоувязанный план, отражающий перспективное развитие народного хозяйства в целом.

Модель по своей форме является многоступенчатой. Относительно деятельностей, агрегированных на уровне отраслей, в модели содержатся непрерывные, линейные переменные. Костяк модели состоит из системы условий, призванной обеспечить на отдельных этапах планового периода и между ними внутреннюю сбалансированность расширенного социалистического воспроизводства и его соответствие внешним условиям развития.

Неотрицательные решения системы условий отвечают вариантам взаимоувязанного перспективного развития.

Модель приводится в действие посредством техники линейного программирования таким образом, что ищутся возможные экстремальные решения при помощи линейных целевых функций, устанавливаемых на основании различных общественных предпочтений. Систематическое варьирование параметров, устанавливаемых на отдельных этапах исчисления, позволяет сопоставлять эффект различных концепций экономической политики.

Таким образом, модель служит не для определения какого-либо «оптимального» варианта перспективного плана, а предусматривается как рациональный вспомогательный инструмент «обобщающей» работы в системе деятельностей, связанных с перспективным планированием.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (3), pp. 269—282 (1969)

Á. SCHMIDT

GRUNDLEGENDE EIGENHEITEN DES NEUEN UNGARISCHEN WIRTSCHAFTSMECHANISMUS

Der Verfasser untersucht die Eigenheiten des anfangs 1968 eingeführten neuen ungarischen Wirtschaftsmechanismus und besonders das Problem seines Standortes im Wirtschaftssystem. Das System selbst ergibt sich aus der Kombinierung der Dimensionen einerseits der Eigentums- und Tätigkeitsorganisation, andererseits der Leitungsmethode. Auf Grund seines Standortes in diesem System wird der neue ungarische Wirtschaftsmechanismus in bezug auf die Tätigkeit als eine dezentralisierte und entscheidend indirekt gelenkte sozialistische Planwirtschaft mit reguliertem Markt qualifiziert.

Von der Mitte der Fünfzigerjahre an erfolgten im System der Planung und Leitung der Volkswirtschaft der sozialistischen Länder in verschiedenen Beziehungen geringere oder grössere Veränderungen. In der Mehrzahl der Länder wurde, neben Beibehaltung der früheren Grundzüge, die Vervollkommnung, Rationalisierung und Vereinfachung des Systems angestrebt, in einigen anderen Ländern dagegen wurde eine bedeutendere Reform beschlossen und durchgeführt. Zu den letzteren gehört Ungarn, wo am 1. Januar 1968, ein neuer Wirtschaftsmechanismus eingeführt wurde.[1] Im neuen Mechanismus wurde die Ausgabe von Plandirektiven an die Unternehmen abgeschafft; der

[1] Auf den neuen Mechanismus beziehen sich u. a. folgende Werke: NYERS, R.: The Comprehensive Reform of Managing the National Economy in Hungary. Acta Oec., 1966. Vol. 1. No. 1—2. 19—37. p. SZABÓ, K.—MANDEL, M.: Management of Fixed Assets in the New Economic Mechanism. Acta Oec., 1966. Vol. 1. No. 3—4. 285—297. p. BALÁZSY, S.: Foreign Trade and the Reform of Economic Management. Acta Oec., 1966. Vol. 1. No. 3—4. 313—326. p. TIMÁR, M.: The Reform of the Financial and Credit System in Hungary. Acta Oec., 1967. Vol. 2. No. 1—2. 47—63. p. BOGNÁR, J.: La conception du commerce extérieur dans le nouveau mécanisme économique. Acta Oec., 1967. Vol. 2. No. 1—2. 77—93. p. FENYŐ, I.: The New System of Management in Hungarian Home Trade. Acta Oec., 1967. Vol. 2. No. 1—2. 93—107. p. LÁSZLÓ, J.: The Planned Control of Cooperative Farm Production and the Reform of Economic Management. Acta Oec., 1967. Vol. 2. No. 3. 214—226. p. VAJDA, I.: External Equilibrium, Neo-techniques and Economic Reform. Acta Oec., 1967. Vol. 2. No. 4. 291—309. p. GADÓ, O.: Relations between the 1968 Economic Plan and Economic Regulators. Acta Oec., 1968. Vol. 3. No. 1. 3—23. p. RÉVÉSZ, G.: Regulation of Enterprise Profits under the New System of Economic Control and Management. Acta Oec., 1968. Vol. 3. No. 1. 23—41. p. ÁCS, L.: The Effect of the Banking System on Enterprise Management under the New Hungarian Economic Mechanism. Acta Oec., 1968. Vol. 3. No. 1. 45—55. p. — FRISS, I. (ed.): Reform of the Economic Mechanism in Hungary. Akadémiai Kiadó, Budapest, 1969. 274 pp. — Ferner: FÖLDI, T.—FERENCZY, Ö. (eds.): Selected Bibliography on the Reform of the System of Economic Control and Management in Hungary. Hungarian Academy of Sciences, Institute of Economics. Budapest, 1968. 40 pp.

volkswirtschaftliche Plan bestimmt die Hauptproportionen, die Entwicklungsrichtung und die grundlegenden Zielsetzungen der Volkswirtschaft; der Plan gibt den Initiativen, der selbständigen Tätigkeit und Entwicklung der Unternehmen freien Raum und begründet dies auch finanziell; das Erreichen der Planziele wird im Mechanismus durch ökonomische, in erster Reihe finanzielle Regulatoren, durch preis-, einkommen-, investitions-, kredit-, aussenhandels- und budgetpolitische Mittel gesichert; der Plan und die informativen, kontrollierenden und korrektiven Funktionen des geregelten Marktes werden besonders durch das auf die Markteinflüsse sensibler reagierende Preissystem fester verbunden; die Unternehmen, die Unternehmensleiter und Kollektiven sind — statt an der Erfüllung von Plankennziffern — an der Erhöhung des von der wirtschaftlich nützlichen Leistung abhängigen Gewinns interessiert. Nach Einführung des neuen Wirtschaftsmechanismus bleibt Ungarn natürlich weiterhin eine sozialistische Planwirtschaft, aber zweifellos mit einem anderen System, als z. B. anfangs der Fünfzigerjahre.

Nach der erwähnten Veränderung wurde die Frage nach dem Standort der Varianten im System der Wirtschaften, der konkreten sozialistischen Planwirtschaften gestellt, bzw. aktuell. Es ist bekannt, dass die sozialistischen Planwirtschaften früher auch von den sozialistischen Ökonomen im allgemeinen als zentralisierte Wirtschaften charakterisiert, von bürgerlichen Ökonomen aber — nach *Eucken* — sogar als Zentralverwaltungswirtschaften eingereiht wurden. Diese Definition war in der gegebenen Lage und im gegebenen Zeitpunkt im grossen und ganzen zutreffend. Als Ergebnis der sich auf die Realität der Wirtschaft und auf die Vervollkommnung des Systems richtenden Untersuchungen stellte sich aber nach und nach heraus, dass die zentralisierte Organisation der sozialistischen Wirtschaft nicht als einzige, ausschliessliche und charakteristische Daseinsform des sozialistischen Systems zu betrachten sei, sondern auch eine anderweitige Organisation des Systems vorstellbar und durchführbar ist. Als sozusagen zwei Extreme der Organisationslösungen unterschied in der polnischen ökonomischen Literatur *W. Brus* zwei mögliche »Modelle« des Funktionierens der sozialistischen Wirtschaft, wobei im zentralisierten Modell sich auch die mikroökonomischen Entscheidungen bei den Zentralorganen konzentrieren, im dezentralisierten Modell dagegen gehören sie zu den Befugnissen und Aufgaben der Unternehmen. Das Wirtschaftssystem konnte aber neben dem organisatorischen Gesichtspunkt der Zentralisierung-Dezentralisierung auch von der Methode der Leitung aus qualifiziert werden. Im neuen ungarischen Wirtschaftsmechanismus traten an Stelle von Direktiven, Anweisungen, zentralen operativen Massnahmen, die gesteigerte Ausnutzung der Möglichkeiten der Waren- und Geldverhältnisse, die ausgedehntere Anwendung von ökonomischen und finanziellen Mitteln und im allgemeinen an Stelle der Bestimmung der wirtschaftlichen Tätigkeit, deren Beeinflussung. Dies gab Gelegenheit zur Feststellung, dass im sozialistischen

Wirtschaftssystem zwei charakteristische Typen vorzufinden sind: das direkte und das indirekte Leitungssystem. Gemäss Beurteilung eines ungarischen Ökonomen, Kálmán *Szabó*, besteht die bedeutendste Eigenheit des neuen ungarischen Wirtschaftsmechanismus in der Anwendung von wirtschaftsleitenden Methoden indirekten Typs.[2]

Auf Grund der Untersuchung der aufgeworfenen Frage ist vorauszusetzen, dass im neuen Wirtschaftsmechanismus nicht nur eine Dezentralisierung *oder* indirekte Leitung eintritt, sondern — eventuell neben anderen Eigenheiten — beide zusammen verflochten vorkommen. Aus der Klassifizierung und Qualifizierung der möglichen Wirtschaftssysteme ausgehend, haben die untenstehenden Darlegungen das Ziel diese Annahme zu beleuchten und zu beweisen.

Begriff der Zentralisierung, Dezentralisierung, sowie der direkten und indirekten Leitung. Der Begriff der Zentralisation ist im allgemeinen dermassen bekannt, dass seine gesonderte Bestimmung und deren Erläuterung übergangen werden kann. Die Zentralisierung bedeutet bekanntlich Konzentrierung, Zusammenziehung, also Vereinigung von etwas in einer Hand, unter einer Anordnung; Dezentralisierung dagegen, wenn dasselbe in mehreren Händen vereinigt, unter Disposition mehrerer gestellt wird.[3] Die Frage der ganzen Zentralisierung-Dezentralisierung kann nur dann entsprechend untersucht und besprochen werden, wenn wenigstens gänzlich klar und eindeutig ist, *was* und unter *welchem* Gesichtspunkt konzentriert werden soll.

Was die erste Frage betrifft, können wir ohne uns in lange Ausführungen verwickeln zu wollen, feststellen, dass auf wirtschaftlichem Gebiet im Grunde genommen der Zentralisierung oder Dezentralisierung von zwei Dingen Aufmerksamkeit gebührt. Zentralisieren oder dezentralisieren kann man einerseits die Produktionsmittel, andererseits die Nutzung der Produktionsmittel. In einer etwas abweichenden Formulierung, jedoch das Wesentliche betreffend, kann im gleichen Sinne gesagt werden, dass das Eigentum und die (Wirtschafts-) Tätigkeit, also die Entscheidung und Durchführung zentralisiert oder dezentralisiert werden können. Der Eigentümer der Produktionsmittel und der mit diesen eine wirtschaftliche Tätigkeit Ausübende ist nicht unbedingt dieselbe Person; die Entwicklung kann zur Trennung der beiden Personen führen. Die Tatsache, dass die über den Dingen stehende tatsächliche Macht, die

[2] S. Eucken, Walter: Grundsätze der Wirtschaftspolitik. 4. unveränderte Auflage. J. C. B. Mohr, Tübingen — Polygraphischer Verlag A. G., Zürich 1968. — Brus, Wlodimierz: Ogolne problemy funkcjowania gospodarki socjalistycznej. Panstwow Wydawstwo Naukowe. Warszawa, 1961. — Szabó Kálmán: A szocialista gazdaságirányítási rendszer. A szocializmus politikai gazdaságtana. Tankönyv. (Das sozialistische Wirtschaftsleitungssystem. Politische Ökonomie des Sozialismus. Lehrbuch.) Kossuth Buchverlag, Budapest, 1967. Siebentes Kapitel. 248—297. p.

[3] Beim Gebrauch des Begriffs Zentralisierung oder Dezentralisierung denken wir im allgemeinen nicht an den *Prozess* der Konzentrierung oder dessen Gegenteil, sondern an die das Ergebnis bildende *Lage*, also an die Zentralisiertheit, Dezentralisiertheit — Konzentriertheit, bzw. Dekonzentriertheit.

Bestimmung über die Dinge, sich von dem Eigentum, d. h. — nach Definition der Rechtswissenschaft — von dem ausschliesslichen Verfügungsrecht über die Dinge trennen kann, ist die Grundlage der Unterscheidung zwischen Eigentum und Besitz. Der Eigentümer ist nicht immer Besitzer und der Besitzer ist nicht immer Eigentümer. Im Falle diese, auch schon den römischen Juristen bekannte Tatsache ausser acht gelassen wurde, konnte sich die Untersuchung, Interpretierung und Erklärung einzelner Vorgänge des sozialistischen Wirtschaftslebens in verschiedene Pseudo-Probleme verwickeln. Die Frage trat z. B. auf, ob die von den staatlichen Unternehmen stammende Einnahme des sozialistischen Staates ein originales oder derivates Einkommen sei; ob das staatliche Unternehmen überhaupt Steuern in das staatliche Budget einzahlen könne; ob die Produktionsmittel eigentlich im Besitze des Staates oder des staatlichen Unternehmens seien usw. Die Unterscheidung der Produktionsmittel und ihrer Nutzung haben notwendigerweise zur Folge, dass weder ihre Zentralisiertheit noch Dezentralisiertheit zusammenfallen muss. Eigentumszentralisation und Eigentumsdezentralisation können natürlich zusammenfallen, doch ist z. B. eine Zentralisation des Eigentums und eine Dezentralisation der Tätigkeit (der Entscheidung und Durchführung) vorstellbar.

Eine andere Frage der Zentralisation: unter welchem Gesichtspunkt soll die Erscheinung betrachtet werden? Die Zentralisation und Dezentralisation sind stufenförmige Erscheinungen, so können wir z. B. vom Gesichtspunkt des niedrigeren Organs einer Zentralisation, während vom Gesichtspunkt des höheren Organs einer Dezentralisation gegenüberstehen. Ein Trust kann z. B. die Entscheidungen zwischen den Unternehmen dezentralisieren, das Unternehmen jedoch kann eine Zentralisation gegenüber den Fabrikseinheiten anwenden. Da hier über die Frage der Zentralisiertheit der gesamten Volkswirtschaft die Rede ist, ist es augenscheinlich, dass die Zentralisierung, Dezentralisierung immer vom Gesichtspunkt der Gesamtheit der Gesellschaft — bzw. des Staates — also auf makroökonomischem Niveau zu untersuchen ist.

Im Zusammenhang mit dem Begriff der Leitung tauchen relativ weniger zu klärende Fragen auf. Es ist ebenfalls offensichtlich, dass wir bei der Untersuchung der Frage immer an die staatliche Leitung denken. Die Leitung (staatliche Leitung) kann im allgemeinen genommen auf zwei Weisen, direkt und indirekt erfolgen. Bekannte Mittel der unmittelbaren Leitung sind die Anweisungen, die obligatorischen Plankennziffern, die operativen Massnahmen, Zuweisungen, Abführungen usw. Die vollkommenste Erscheinung der direkten Leitung ist der militärische Befehl, welcher bedingungslos und ohne individuelle persönliche Interessiertheit erfüllt werden muss. Die Mittel der indirekten Leitung sind, wie hievon bereits die Rede war, die mit Rücksichtnahme auf die Interessiertheit ausgebildete rahmenmässige Regulierung, die Anwendung von Marktmitteln, die Anwendung der Mittel der Beeinflussung, Lenkung, der Wirtschafts- und Finanzpolitik usw. (Preispolitik, Steuerpolitik,

Kreditpolitik usw.). Nach Charakterisierung der beiden Typen ist auch hier darauf hinzuweisen, dass die Anwendung der direkten und indirekten Mittel der Leitung in Wirklichkeit auch verflochten erscheinen kann.

In Verbindung mit der Leitung soll — neben der direkten und indirekten Methode — der Vollständigkeit halber noch eine Variante erwähnt werden: das Nicht-Vorhandensein, der Mangel an Leitung. Diese leitungslose Lage ist eher nur eine prinzipielle (formelle) Variante, die heute wohl in keiner einzigen Wirtschaft der Welt in ihrer Reinheit aufzufinden ist; die Wirtschaften der Länder stehen mehr oder weniger unter Leitung. Aber im Prinzip darf man auch diese Variante nicht ausser acht lassen.[4]

Grundvarianten des kombinativen Systems der Organisation und Leitung. Wenn wir einerseits die zentralisierte und/oder dezentralisierte Organisation, andererseits sämtliche prinzipiell möglichen Kombinationen der direkten oder indirekten Leitung überblicken wollen, kann man am zielgemässesten das untenstehende Schema als Grundlage nehmen:

Organisation / Leitung	Ohne Leitung	Indirekte Leitung	Direkte Leitung
Eigentums- und Tätigkeitsdezentralisation	1.	2.	3.
Eigentumsdezentralisation, Tätigkeitszentralisation	4.	5.	6.
Eigentums- und Tätigkeitszentralisation	7.	8.	9.
Eigentumszentralisation, Tätigkeitsdezentralisation	10.	11.	12.

(Die Zahlen bedeuten die Varianten der möglichen prinzipiellen Kombinationen.)

Im Zusammenhang mit obiger schematischer Tabelle ist es notwendig auf folgendes hinzuweisen:

Die Tabelle zeigt das System der prinzipiell möglichen Varianten der Organisation und Leitung. Unter den Varianten existieren einige tatsächlich im wirklichen Wirtschaftsleben und kommen im allgemeinen zur Geltung. Es gibt solche Varianten, die nur ausnahmsweise, oder nur teilweise, oder mit anderen Varianten vermischt verwirklicht werden. Endlich gibt es auch solche Varianten, die fast im Widerspruch mit sich selbst stehen und in der Wirklichkeit garnicht vorkommen.

Bei Betrachtung der Tabelle kann auffallen, dass in ihr kein Hinweis auf die Planung — und auf den Markt — zu finden ist. Dies ist leicht verständlich, weil bei Ausarbeitung der Tabelle die Dimension der Geplantheit oder Nichtgeplantheit nicht in Betracht kam. Im Zusammenhang mit der Planung ist

[4] Abweichend von der prinzipiellen Variante der Leitungslosigkeit, kann die vollkommene Unorganisiertheit — die Anarchie — gänzlich ausser acht bleiben.

soviel zu bemerken, dass der Leitung ein Plan zugrundeliegen kann und in diesem Fall der Plan die Grundlage der Leitung ist. Eine Leitung kann aber auch ohne einen (volkswirtschaftlichen) Plan möglich sein, in welchem Falle wir einer, sich auf verschiedene konkrete wirtschaftspolitische Ziele gerichteten, fallweisen, aber natürlich ebenfalls bewussten Leitung gegenüberstehen. Sollte der Leitung ein Plan zugrundeliegen, kann der Plan durch direkte oder indirekte Leitung durchgeführt werden.

Endlich ist noch zu erwähnen — wenn auch vielleicht überflüssigerweise — dass obiger Überblick mit der Systematisierung der Marktformen gemäss Eucken nicht identisch ist.[5] Hier ist nicht von den Marktformen, sondern von den prinzipiell möglichen Grundvarianten der Wirtschaftssysteme die Rede, systematisiert vom Gesichtspunkt der Organisation und Leitung.

Eigenheiten der Grundvarianten des Systems

Nach Aufskizzieren der Varianten können wir in Augenschein nehmen, auf welche Weise sich die wirtschaftliche Wirklichkeit in die Gliederung des Systems einfügt, bzw. eingeordnet werden kann.

Die durch die Eigentumsdezentralisation charakterisierten Varianten 1—6. umfassen offenbar die auf dem Privateigentum basierende Wirtschaft, also ausschlaggebend die Typen der kapitalistischen Wirtschaft. Darunter sind die Varianten 1—3. die realsten und typischesten; die Varianten 4—6. sind im wesentlichen irreal — beanspruchen aber aus einem gewissen Gesichtspunkt trotzdem die Aufmerksamkeit.

In der 1. Variante zeigt sich eine gänzliche Eigentums- und damit einhergehende Tätigkeitsdezentralisation ohne staatliche Leitung. Diese Variante ist der klassische Kapitalismus der freien Konkurrenz, die Welt von Adam Smith — oder nach Belieben — von Mises, Hayek und ihren Anhängern. Die Produktionsmittel sind in den Händen der Privatwirtschaften und die wirtschaftliche Tätigkeit wird nur durch die Smith'sche unsichtbare Hand gelenkt. Dieser Typ gehört in seiner Reinheit im grossen und ganzen schon der Wirtschaftsgeschichte an; kommt in Wirklichkeit nicht mehr vor, höchstens in den Abstraktionen der ökonomischen Theorien.

Variante 2. ist heute der allgemeinste Typ der kapitalistischen Wirtschaft. Die Produktionsmittel sind in überwiegender Mehrzahl Eigentum der Privaten, der Kapitalisten und Kleinwarenerzeuger, stehen unter Verfügung der Privatwirtschaften, dienen dem Nutzen der Privatwirtschaften und in erster Reihe dem Profit der Kapitalisten, die wirtschaftliche Tätigkeit wird aber durch den Staat irgendwie indirekt geleitet. Ziel, Kreis, Ausdehnung, Intensität, Methode, Mittel der Leitung können verschieden sein, die Leitung

[5] Vgl.: a. a. O. 22. p.

besteht aber auf jeden Fall, und zwar ohne direkte Anweisungen, eingreifende Massnahmen, Befehle. Über die allgemeine Rahmenregulierung der Wirtschaft hinausgehend, wendet eigentlich schon jeder kapitalistische Staat eine indirekte Leitung an, sogar ein solches Land, welches sich im Prinzip auf das System der freien Marktwirtschaft stützt. Eine Leitung wird von sämtlichen Anhängern der staatlichen Wirtschaftspolitik als notwendig erachtet, von Colbert (sogar schon von viel Früheren) angefangen über Friedrich List bis Keynes und seinen Nachfolgern. Auf diesem Gebiet erschliesst sich vor uns im Dienste der die Grundprobleme der Wirtschaft berührenden Politiken — Konjunkturpolitik, Strukturpolitik, Beschäftigungspolitik, Wohlfahrtspolitik, Einkommensverteilungspolitik usw. — sowie der verschiedenen Zweigpolitiken — Industriepolitik, Agrarpolitik usw. — eine breite Vielfalt der verschiedenen Arten und Mittel der indirekten Leitung — Geldpolitik, monetäre Politik, Kreditpolitik, Budgetpolitik, Preis- und Lohnpolitik usw. Die in Rede stehenden wirtschaftspolitischen Massnahmen können in den meisten Fällen schon vor ihrer konkreten Durchführung, ausschliesslich durch ihre Ankündigung, zur Regulierung des Wirtschaftslebens, zur Beeinflussung der wirtschaftlichen Einheiten in eine erwünschte Richtung geeignet sein. (Announcement effect.)

Variante 3. erscheint im ersten Augenblick als widersprüchlich und irreal. Eine kapitalistische Wirtschaft mit einer direkten staatlichen Leitung: dies wäre eine sinnlose Variante. Sie ist aber doch nicht gänzlich sinnlos und auch nicht unmöglich, weil unter ausserordentlichen Umständen und teilweise, also sich nicht auf alles und Alle beziehend, kann auch diese Variante verwirklicht werden. Jene Situation, in welcher — neben und trotz einer gänzlichen Eigentums- und Tätigkeitsdezentralisiertheit — die staatliche direkte Leitung auftritt: ist der Zustand der Kriegswirtschaft.[6] Die Produktionsmittel sind weiterhin in Privateigentum und private Wirtschaften versehen die Wirtschaftstätigkeit, aber der Staat kann die verschiedensten direkten Leitungsmittel, sogar eingreifende Massnahmen anwenden, so z. B. Pflichtabgaben, Requirierung, obligatorische Produktionsbestellungen, Materialzuweisungen, Aussenhandelskontingente, Währungsbeschränkungen, Regulierung von Preisen und Löhnen usw. Das kapitalistische Wirtschaftssystem ist nur infolge des Krieges und hauptsächlich zur Zeit eines Krieges geneigt alldiese Mittel und Massnahmen hinzunehmen und zu ertragen; wenn der Krieg beendet ist, muss diese direkte Leitung, der »Dirigismus« je früher aufhören.

Gemäss ihrem Standort im System gehören die Varianten 4—6. ebenfalls unter die Varianten der kapitalistischen Wirtschaft, entbehren aber jeglicher Realität. Eine solche Variante, wo die Produktionsmittel in Privateigentum verbleiben, ihre Nutzung, ihre Bewirtschaftung aber der Staat an sich reissen

[6] Das Land muss nicht im Kriege stehen, damit sich eine dem Wesen nach Kriegswirtschaft ausbilden soll; eine Kriegswirtschaft kann auch schon dadurch ausgelöst werden, dass man sich auf einen Krieg vorbereitet.

würde, kann man sich kaum vorstellen.[7] Die Variante ist jedoch nur in bezug auf die staatliche Zentralisation irreal, nicht aber hinsichtlich einer Zentralisation auf anderer Stufe. Die Eigentumsdezentralisation und die (nicht staatliche) Tätigkeitszentralisation sind ja eben eine der am meisten ins Auge fallenden Erscheinungen der modernen kapitalistischen Wirtschaft. Gründet sich ja doch selbst die Aktiengesellschaft, die eine der bedeutendsten »Erfindungen« der wirtschaftlichen Entwicklung der Menschheit ist, auf das Prinzip, dass neben einer Dezentralisiertheit des Eigentums (in Form von Aktien) die volle Zentralisierung der Tätigkeit (durch die Gesellschaft) verwirklicht wird. Auf einer höheren Stufe ist die Lage ähnlich im Falle der verschiedenen horizontalen und vertikalen Assoziierungen und Integrationen der Kapitalgesellschaften, in denen neben einer Selbständigkeit des Eigentums der einzelnen Unternehmen eine gewisse Zentralisierung der Tätigkeit, zusammen mit verschiedenen Leitungsmodalitäten vor sich geht. Dies ist die Lage z. B. auch im Falle von Kartellen, Trusten. Und in diese Welt gehört eigentlich auch die Ausbildung des Managertums, bei welchem die Besitzer schon sozusagen überhaupt nicht mehr an der tatsächlichen Geschäftsführung teilnehmen, sondern dies in die Hände der Manager übergeht, die eigens zum Versehen dieser Aufgabe befähigt sind. Die staatliche Zentralisierung der Nutzbarmachung der Produktionsmittel ist aber in diesen Fällen nicht vorhanden.

Die durch die staatliche Zentralisation des Eigentums charakterisierten Varianten 7–12. umfassen augensichtlich und leicht verständlich die sozialistische Wirtschaft. Unter diesen müssen wir uns mit den Varianten 9. und 11. eingehender befassen, erwähnen aber auch die anderen.

Die Variante 7., also eine in bezug auf Eigentum und Tätigkeit zentralisierte Wirtschaft ohne jede Leitung, kann als eine ganz irreale qualifiziert werden. Wenn alle Produktionsmittel in staatlichem Eigentum sind und die Produktion eigentlich in einem einzigen Grossbetrieb organisiert ist, dann ist es — wenigstens auf Grund unserer derzeitigen Kenntnisse — unvorstellbar, dass die Wirtschaft ohne Leitung wirken könne. Diese Variante kann also ausser acht bleiben.

In der Variante 10. ist die Situation ähnlich, doch nicht gänzlich gleich. Wenn sich die Produktionsmittel in staatlichem Eigentum befinden, ihre Nutzung aber selbständigen Einheiten übergeben wird, ist unserer Meinung nach eine Leitung dennoch auf jeden Fall notwendig. Trotzdem können derlei Gedanken auftauchen — und sind vereinzelt, leise auch aufgetaucht — dass das Funktionieren der Wirtschaft der Zusammenarbeit zwischen den einzelnen wirtschaftenden Einheiten und gewissermassen dem Automatismus des Marktes anvertraut werden könne. Besonders in der Etappe vor der tatsächlichen Ver-

[7] Wir können von den — übrigens nur in vereinzelten Fällen — in staatlichen Besitz übernommenen Privatunternehmen absehen, weil solche Massnahmen kein allgemeines System bilden.

wirklichung des Sozialismus, in den sich auf die Funktionsfähigkeit der sozialistischen Wirtschaftsordnung bezüglichen theoretischen Untersuchungen, sowie in gewissem Masse bei der Skizzierung der Umrisse des dem früheren gegenüber wirksameren Wirtschaftsmechanismus, entstand oder geisterte wenigstens in einigen Meinungen die Vorstellung einer solchen sozialistischen Wirtschaft »mit freiem Wettbewerb«.[8] Die Wirklichkeit der Wirtschaft zeigte aber, dass das die Produktionsmittel zentralisierende System ohne staatliche Leitung, und zwar ohne eine sich auf die Gänze der Volkswirtschaft erstreckende Leitung, nicht bestehen kann. (Dass die Leitung makroökonomisch die Gesamtheit der Volkswirtschaft umfasst, bedeutet aber nicht, dass sich dies am mikroökonomischen Niveau auf die Gänze der Unternehmenstätigkeit bezieht.)

In der bisherigen Etappe des Aufbaues des Sozialismus war der amtliche und auch von der Wirtschaftswissenschaft ohne jeden Zweifel unterstützte Standpunkt, dass neben der Zentralisierung der Produktionsmittel auch die Zentralisierung der Tätigkeiten notwendig sei, es entstand also die Idee der sozialistischen Wirtschaft, als eines einzigen, grossen, gesamtstaatlichen Betriebes. Die niedrigeren Einheiten eines solchen »Betriebes«, die nach dem Prinzip — oder eher nach der Phrase — der wirtschaftlichen Rechnungsführung wirtschaftenden Unternehmen, mussten auf Grund dieser Konzeption fast notwendigerweise auf direkte Art geleitet werden. Dies wurde auch unter anderem durch die Mangelwirtschaft-Lage beansprucht und gerechtfertigt, den wirklichen oder vorausgesetzten Mangel an Fachleuten, die zu einer selbständigen Leitung der Unternehmen fähig sind, mitinbegriffen. Mit der Zentralisierung ging also die direkte Leitung einher und so verwirklichten sich die früheren konkreten Systeme der sozialistischen Wirtschaften im grossen und ganzen gemäss der Grundvariante 9.

Die Eigenheiten dieses Systems sind allbekannt und so genügt es diese nur kurz aufzuzählen. Zentralisation der Entscheidungen und der Verfügung über die materiellen Mittel, in der als Grund der Leitung dienenden Planung die Dominierung der jährlichen Planung und der naturalen Anschauung, »Aufschlüsselung« des volkswirtschaftlichen Planes auf die Unternehmen, Bestimmung der Unternehmenstätigkeit durch umfassende Plankennziffern und Wertung der Tätigkeit gemäss der Erfüllung der Plankennziffern, Verengung und Starrheit der Warenmechanismen, weiters konkrete operative Einmischungen in die Unternehmenstätigkeit, Abführung oder Heranziehung der materiellen und Geldmittel, Anweisungssystem für Materialien und Geldmittel, Festsetzung verschiedener — irrtümlicherweise auf eine freiere Tätigkeit schliessen lassender — Rahmen usw. charakterisierten näher die praktische Verwirklichung der Variante 9.

[8] Vgl.: BARONE, Enrico: Il Ministro della Produzione nello Stato Collettivista. Giornale degli Economisti, 1908. — In der ungarischen Wirtschaftswissenschaft neigen sich PÉTER, György, in der tschechoslowakischen Ota SIK den erwähnten Ansichten zu.

Zwischen der Grundvariante 3. der kapitalistischen Kriegswirtschaft und der Variante 9. der zentralisiert-direktgeleiteten sozialistischen Wirtschaft zeigen sich zwar wesentliche Unterschiede zwischen den Zielen, Grundlinien, Produktionsverhältnissen der zweierlei Gesellschaftssysteme, hinsichtlich der Mittel und Methoden ist zwischen den beiden Varianten die Ähnlichkeit dennoch ziemlich ins Auge fallend. Die administrativen Mittel, verschiedene Anweisungen, Genehmigungen und Zuweisungen, Preis- und Lohnfixierungen, Währungsbeschränkungen usw. sind bekannte Eigenheiten der kapitalistischen Kriegswirtschaft; die zentralisiert-direktgeleitete sozialistische Wirtschaft bedient sich ebenfalls ausgiebig dieser und ähnlicher Mittel. Vielleicht ist die Voraussetzung gar nicht übertrieben, dass das in Frage stehende System die kriegswirtschaftliche Etappe der Entwicklung des Sozialismus war, nicht so sehr im militärischen, als eher im geschichtlichen Sinne des Wortes.

Der neue Wirtschaftsmechanismus — wie schon erwähnt — setzte sich die Abschaffung der übertriebenen Zentralisierung und die Anwendung einer effektiveren Leitungsmethode, die Einführung einer indirekten Leitung zum Ziel. Der neue Wirtschaftsmechanismus entspricht im grossen und ganzen der Grundvariante 11. In organisatorischer Beziehung dadurch charakterisiert, dass der überwiegende Teil der Produktionsmittel zentralisiert, in staatlicher Hand gehalten — also nicht in ein Gruppeneigentum gegeben und gekommen ist —, in bezug auf die Nutzung der Produktionsmittel aber dadurch, dass die Führung der wirtschaftlichen Tätigkeit dezentralisiert ist. Dabei und damit im Zusammenhang erfolgt die Leitung anstatt der früher angewendeten direkten Methoden auf indirekte Weise. Die in Frage stehende Variante wird durch Anwendung der Dezentralisierung und der indirekten Leitung *zusammen* charakterisiert. Eine Dezentralisierung trat ein — neben Aufrechterhaltung der Zentralisiertheit der makroökonomischen Entscheidungen — auf dem Gebiet der Entscheidungen, bei der Verfügung über die zur Bewirtschaftung notwendigen Mittel, Geldfonds, in der Rolle auf dem Gebiet der Planung, bei den zwischen den Unternehmen unter sich ausgebildeten Warenbeziehungen usw. Auf dem Gebiet der Leitung dagegen trat an Stelle der Anweisungen, obligatorischen Plankennziffern, operativen Einmischungen — auf Grund der Verbreiterung des Geltungsbereiches der Waren- und Geldverhältnisse — die Anwendung von indirekten Methoden — von ökonomischen, also z. B. preispolitischen, einkommenregulierenden, kreditpolitischen usw. Mitteln. Der neue Wirtschaftsmechanismus ist also nach unserer Beurteilung ein dezentralisiertes *und* indirekt geleitetes Wirtschaftssystem.

Aus den obigen scheint es feststellbar, dass der Zentralisierung die direkte Leitung, der Dezentralisierung die indirekte Leitung entspricht. Dies erwägend, stellt sich die Frage, ob — in der sozialistischen Wirtschaft — mit einer zentralisierten Organisation eine indirekte Leitung und mit einer dezentralisierten Organisation eine direkte Leitung übereinstimmen und

einhergehen könne. Ob also die Grundvariante 8. und 12. als real betrachtet werden kann?

Es muss anerkannt werden, dass die beiden in Frage stehenden Varianten in bezug auf Realität ziemlich problematisch erscheinen. In Wirklichkeit sind die beiden Varianten mit einigen inneren Widersprüchen behaftet. Man kann sich kaum vorstellen, dass in Grundvariante 8. die Geschäftsleitung des grossen gesamtstaatlichen Unternehmens die einzelnen Betriebseinheiten des Unternehmens, unter Umgehung jeder direkten Leitung, ausnahmslos auf indirekte Weise leiten könne. Einzelne Elemente der indirekten Leitung haben aber auch noch in einem am zentralisiertesten und direktesten geleiteten Wirtschaftssystem Platz gefunden. Die Leitungsmittel der indirekten Leitung waren überwiegend sekundären, aushelfenden Charakters und waren in erster Reihe dazu berufen, die Erfüllung der in den Plänen und durch Plankennziffern bestimmten Aufgaben zu fördern. Die entschiedene Beeinflussung der Tendenz der Unternehmenstätigkeit, ihres Umfanges, ihrer Entwicklungen, stellten sich die Anwender der indirekten Mittel selten zum Ziel, was offenbar dem Wesen und Geist des Plandirektiven-Leitungssystems widersprochen hätte. In dem System der direkten Leitung versuchte die zentrale Wirtschaftsführung z. B. die Produktion, den Materialverbrauch, die Qualität usw. durch verschiedene, hauptsächlich preispolitische Mittel zu beeinflussen, diese Mittel kamen aber als fremde Elemente in das System der direkten Leitung und führten im allgemeinen gar nicht zu einem befriedigenden Ergebnis. Im Falle der gemeinsamen Anwendung und des Zusammenstosses der direkten und indirekten Leitungsmittel, erwiesen sich meistens die vorherigen als stärker und vereitelten zum grossen Teil die Wirkung der letzteren.

Im grossen und ganzen genommen sind diese Erwägungen auch im Falle einer direkten Leitung der dezentralisiert organisierten Wirtschaft — also bei Grundvariante 12. — ähnlich. Kann man überhaupt über die Dezentralisierung der Tätigkeit, Entscheidung, Durchführung sprechen, wenn das Unternehmen für seine Tätigkeit von den oberen Organen eine direkte Leitung, z. B. Anweisung, Plankennziffer, oder anstatt der Möglichkeit am Markt zu kaufen eine Zuteilung bekommt? Die Frage können wir damit beantworten, dass in einer dezentralisierten Wirtschaft einzelne Mittel der direkten Leitung nicht ausgeschlossen, diese aber eigentlich Fremdelemente im System sind. Ihre Anwendung steht prinzipiell nicht in Einklang mit dem System der dezentralisiert organisierten Wirtschaft, kann aber praktisch, in gewissen Fällen angebracht sein. Eine direkte Leitung kommt sogar auch in einem dem Eigentum nach dezentralisierten Wirtschaftssystem vor, ausnahmsweise, in einem beschränkten Kreis, z. B. in der Kriegswirtschaft. Die Möglichkeit — und manchmal Notwendigkeit — der Anwendung der direkten Leitung besteht auch in einem dem Eigentum nach zentralisierten, also im sozialistischen Wirtschaftssystem. Das Einhalten der Grundlinien der Entwicklung, die

Erfüllung internationaler Verpflichtungen kann die Anwendung der direkten Leitung erfordern, z. B. durch Verteilung von Investitionsmitteln, vermittels Produktionsvorschriften usw. Die Mittel der direkten Leitung können im grossen und ganzen vermieden werden, wenn im dezentralisierten Wirtschaftssystem die Unternehmen bereits entsprechend erstarkt (materiell, finanziell, in ihrer Organisation, Unternehmungsfähigkeit und -Bereitschaft, in ihren Erfahrungen usw.), wenn die Waren- und Geldverhältnisse normal sind und wenn der zur Förderung der Planerfüllung bestimmte Marktmechanismus entsprechend funktioniert. Wenn diese Voraussetzungen nicht bestehen, wenn das Gleichgewicht oder die in eine gute Richtung führende Entwicklung der Volkswirtschaft aus irgendeinem Grund in Gefahr gerät, wenn in der konkreten Wirtschaftslage die ausschliesslich indirekte Leitung nicht genügend wirksam ist, dann ist es nicht nur erlaubt, sondern kann sogar auch notwendig sein, Methoden der direkten Leitung — hoffentlich nur als Ausnahme, als Übergang und im engen Kreise — anzuwenden. Eine solche ausnahmsweise direkte Leitung kann notwendig sein, z. B. in einigen Belangen des Aussenhandels, auf dem Gebiet der Devisenwirtschaft und im allgemeinen bei Fällen der Mangelwirtschaft. Die Mangelwirtschaft weist ja fast darauf hin, dass neben der notwendigen Anwendung der direkten Leitung die Fälle der ausnahmsweisen, übergangsweisen Anwendung eigentlich an gewissen Punkten kriegswirtschaftlichen Charakters erscheinen, an solchen Punkten, deren Beseitigung eben von den Ergebnissen des neuen Mechanismus zu erwarten ist.

Zur Ergänzung des obigen ist zu bemerken, dass im Zusammenhang mit den Varianten 8. und 11. das Problem des Wirkungskreises und der Stärke der Leitung auftaucht. In den erwähnten Varianten ist die indirekte Leitung gemeinsam; der Unterschied zeigt sich in bezug auf die Dezentralisiertheit. Wenn aber in der prinzipiell dezentralisierten Variante die indirekte Leitung sich auf jede bedeutendere Tätigkeit des Unternehmens erstreckt und die Leitung — zwar auf indirekte Weise, — aber fast mit zwingender Kraft zur Geltung kommt, dann unterscheidet sich diese Variante in ihren Ergebnissen fast überhaupt nicht von der ihre Tätigkeit auch prinzipiell zentralisierenden Variante. Auch durch Ausserachtlassung von Plankennziffern, Anweisungen, Einmischungen kann ein solches geschlossenes und umfassendes System der Mittel der indirekten Leitung (die Einkommen-, Preis-, Lohn-, Steuer-, Kredit-, Zinspolitik usw.) angewendet werden, welches die Tätigkeit des Unternehmens auf eine bestimmte Bahn führt und auf dieser Bahn hält.[9] Auch diese Lösung zeigt uns, dass neben der Art der Leitung (Direktheit — Indirektheit) auch

[9] Mit einem Gleichnis: dem Fahrer eines Fahrzeugs kann eine Weisung gegeben werden, auf welcher Strasse, mit welcher Geschwindigkeit er wohin kommen soll, er kann aber mit Wegweisern, Verkehrsbeschränkungen, durch sanktionierte Regeln — und auch mit verschiedenen Prämien — auf demselben Weg, mit derselben Geschwindigkeit, genau dorthin gelenkt werden. Von Gesichtspunkt des Ergebnisses unterscheiden sich diese beiden Varianten wenig voneinander.

die Art und Weise der Organisation der Tätigkeit, der Entscheidung und Durchführung (Zentralisierung — Dezentralisierung) nicht als indifferent betrachtet werden kann.

Als Endergebnis konnten wir auf Grund der Analyse der einzelnen Grundvarianten zur Feststellung gelangen, dass der zentralisierten oder dezentralisierten Variante der Organisation einzelne Leitungsarten mehr entsprechen als andere. Dabei kann aber auch festgestellt werden, dass in Wirklichkeit gänzlich reine Kategorien kaum vorkommen und sich die Elemente der einzelnen Grundvarianten in einem gewissen Masse miteinander vermischen können.

Folgerungen in bezug auf die gestellte Frage

Auf die Frage, ob der neue ungarische Wirtschaftsmechanismus — den Ausdruck des dezentralisierten »Modells« verwerfend — nur durch die indirekte Leitung am treffendsten charakterisiert werden kann, versuchen wir auf Grund obiger eine Antwort zu geben.

Unseres Erachtens ist der neue Wirtschaftsmechanismus — neben der Zentralisiertheit der Produktionsmittel, bzw. eines überwiegenden Teiles der Produktionsmittel in den Händen des Staates — durch Dezentralisierung der wirtschaftlichen Tätigkeit (Aufgaben, Entscheidungen, Mittel usw.) zwischen den Unternehmen und neben einer beschränkten bzw. zwangsartigen Anwendung der direkten Leitung, durch Anwendung der indirekten Art der Leitung zu charakterisieren. Diese Auffassung wird dadurch unterstützt, dass unter den Charakteristiken der indirekten Leitung ausgesprochen bestimmte Dezentralisierungserscheinungen eine Rolle spielen, wie z. B. die Dezentralisierung der mikroökonomischen Entscheidungen, der Finanzfragen der Unternehmen usw. Neben der dezentralisierten Organisierung der Wirtschaft kann die Leitung am wirksamsten auf eine indirekte Art verwirklicht werden und der indirekten Leitung die dezentralisierte Wirtschaftsorganisation als Grundlage dienen. Zwischen dezentralisierter Wirtschaftsorganisation und indirekter Leitung ist der Zusammenhang zwar eng, aber letztere kann die vorhergehende doch nicht ersetzen. Schon deswegen nicht, weil die Dezentralisiertheit der Wirtschaft eine allgemein vorkommende Erscheinung ist, während die Indirektheit der Leitung teils notwendigerweise, teils als Ausnahme, sich mit der Direktheit der Leitung mischt. Dabei kommt auch noch in Betracht, dass die Qualifizierung gemäss der Art der Leitung die Wirtschaft eher von oben, die Qualifizierung gemäss der Art der Organisierung aber eher von innen betrachtet; bei der Charakterisierung des Systems sollen beide Anschauungsweisen zur Geltung kommen.

Das derzeitige Wirtschaftssystem Ungarns könnte neben der Art der Organisation und Leitung natürlich auch noch von anderen Gesichtspunkten charakterisiert werden. So z. B. — auch mit den erwähnten Eigenheiten im

Zusammenhang, sogar vermittels einer gewissen Synthetisierung derselben — wäre die vergrösserte Rolle des Marktes hervorzuheben. Aber in diesem Fall müsste man auch darauf hinweisen, dass vermittels einer Steigerung der Bedeutung des Marktes die Planwirtschaft noch nicht in eine Marktwirtschaft verwandelt wurde, sondern sich höchstens zu einer Planwirtschaft mit reguliertem Markt entwickelte.

Zusammenfassend kann man feststellen, dass das System des neuen ungarischen Wirtschaftsmechanismus als eine sozialistische Planwirtschaft mit reguliertem Markt, unter dezentralisierter und überwiegend indirekter Leitung zu qualifizieren ist.

ОСНОВНЫЕ ХАРАКТЕРНЫЕ ЧЕРТЫ НОВОГО ВЕНГЕРСКОГО ХОЗЯЙСТВЕННОГО МЕХАНИЗМА

А. ШМИДТ

В связи с введением нового хозяйственного механизма в Венгрии возникает вопрос о группировке различных хозяйственных систем и места конкретных плановых хозяйств в системе. Хозяйственные системы могут быть сгруппированы и квалифицированы, в частности, с точки зрения способа их организации и управления. В отношении организации учитывается, с одной сотороны, аспект собственности, а с другой стороны, аспект деятельности, причем в связи с обоими возможны централизация или децентрализация; управление же может производиться прямым или косвенным путем. Сочетая аспекты организации и управления, можно получить следующие принципиальные варианты:

Управление / Организация	Без управления	Косвенное управление	Прямое управление
Децентрализация собственности и деятельности	1	2	3
Децентрализация собственности, централизация деятельности	4	5	6
Централизация собственности и деятельности	7	8	9
Централизация собственности, децентрализация деятельности	10	11	12

(Цифрами обозначаются основные варианты возможных принципиальных комбинаций.)

Из указанных вариантов вариант № 1 представляет собой классический капитализм свободной конкуренции; вариант № 2 — капиталистическую экономику, на которую государство оказывает определенное воздействие; вариант № 3 — капиталистическую военную экономику. Варианты №№ 4—6 формальны и лишены какой бы то ни было реальности. Вариантами №№ 7—12 охватываются модели социалистического хозяйства. Из их числа вариант № 7 совершенно нереален, а вариант № 10 — социалистическое хозяйство со «свободной конкуренцией» — представляет собой лишь воображемую систему. Имевшая прежде место система социалистического планового хозяйства относится к варианту № 9 (а в отношении средств управления в некоторой мере аналогична варианту № 3). Новый венгерский хозяйственный механизм в основном содержит элементы, чуждые основным чертам системы; причем вариант № 12, в котором децентрализация — возможно, в виде исключения и лишь частично — сочетается с прямым управлением, может быть отнесен и к варианту № 11.

Рассматривая место нового венгерского хозяйственного механизма в системе, автор констатирует, что его можно охарактеризовать как децентрализованное и в основном косвенно управляемое социалистическое рыночное плановое хозяйство.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (3), pp. 283—297 (1969)

Н. ЧАКИ

КОНКУРИРУЮЩЕЕ И КОМПЛЕМЕНТАРНОЕ МЕЖДУНАРОДНОЕ РАЗДЕЛЕНИЕ ТРУДА В СЕЛЬСКОМ ХОЗЯЙСТВЕ СОЦИАЛИСТИЧЕСКИХ СТРАН

Определив понятия конкурирующего и комплементарного международного разделения труда в сельском хозяйстве, автор рассматривает условия обеспеченности землей в социалистических странах. Он указывает, что из-за сходных во многих отношениях природных условий комплементарное разделение труда стоит на весьма низком уровне, основной же формой разделения труда в сельском хозяйстве оказалась конкурирующая международная специализация производства.

Сельскохозяйственные продукты занимают важное место во внешнеторговой выручке буквально всех стран. На их долю приходится подавляющая часть экспорта освободившихся из под колониального гнета развивающихся стран.

Таблица 1

Удельный вес сельского хозяйства в экспортной выручке (%)
(в 1961 г.)

Аргентина	97
Коста-Рика	96
Бирма	95
Цейлон	95
Индия	46
Таиланд	90
ОАР	76
Гана	77
Нигерия	86

Источник: Monthly Bulletin of Agricultural Economics and Statistics. № 3, 1964 г.

Весьма значительна роль сельскохозяйственного внешнеторгового оборота и в социалистических странах (Табл. 2.).

За исключением самых развитых в промышленном отношении социалистических стран, выручка из сельскохозяйственного экспорта играет большую роль в равновесии внешнеторгового баланса социалистических стран. Таким образом, исследование закономерностей сельскохозяйствен-

Таблица 2

Удельный вес сельского хозяйства (в %%) в экспортной выручке некоторых социалистических стран
(в 1965 г.)

Болгария	50
Венгрия	27
ГДР	6
Польша	23
СССР	23
Югославия	38

Источник: Национальные статистические ежегодники.

ного внешнеторгового оборота весьма важно, особенно в странах, где внешняя торговля и, в частности, внешний оборот сельскохозяйственных продуктов являются одними из важнейших факторов экономического роста.

В настоящей статье рассматриваются формы международного разделения труда, вытекающие из количественных и качественных различий одного из важнейших ресурсов сельскохозяйственного производства — земли. В качестве вступления к этому анализу ознакомимся прежде всего с понятием конкурирующего и комплементарного разделения труда.

Понятие конкурирующей и комплементарной международной специализации

Общее потребление какой-либо страны по всему объему может устойчиво равняться максимуму ее общей продукции. Сельскохозяйственное производство является одной из важнейших отраслей общественного производства, в задачи которого входит производство сельскохозяйственных продуктов, потребляемых внутри страны и в рамках международного разделения труда. Если в каком-нибудь сельскохозяйственном продукте (назовем его продуктом X_1) в стране «А» ощущается при данных доходных условиях большая потребность, чем его производится в стране, то добавочная потребность реализуется только, если: а) на мировом рынке имеется страна или группа стран «Б», в которой продукт X_1 производится в количестве, превышающем внутренние потребности; б) страна располагает продуктом X_2, которым может быть покрыта стоимость ввозимого продукта X_1. Если предположить, что в стране «А» X_1 = стоимости общей продукции сельского хозяйства как основной производственной отрасли, а X_2 = стоимости общей продукции остальных производственных секторов, то можно сформулировать следующую зависимость: страна «А» может потреблять сельскохозяйственные продукты в объеме, превышающем собственную сельско-

хозяйственную продукцию, только в случае, если их стоимость может быть покрыта ею на мировом рынке за счет продуктов X_2. Эта зависимость освещает нам весьма важную вертикальную сторону международного разделения труда.

Обозначив стоимость общей сельскохозяйственной продукции страны «А» через X_1, а общую стоимость потребления сельскохозяйственных продуктов — через Y_2, мы получим из их отношения коэффициент сельскохозяйственного самообеспечения страны:

$$\beta = \frac{X_1}{Y_2}$$

Коэффициент самообеспечения показывает, в какой мере способно сельское хозяйство как производственный сектор покрывать потребление страной сельскохозяйственных продуктов.

Если $\beta > 1$, то страна производит чистый сельскохозяйственный экспорт,[1]
если $\beta \cong 1$, то страна осуществляет самообеспечение,
если $\beta < 1$, то страна производит чистый сельскохозяйственный импорт.

Рассматривая соотношения производства и потребления сельскохозяйственных продуктов внутри страны в целом, можно узнать, ограничено ли сельскохозяйственное производство в достижении уровня внутреннего потребления продуктов или нет. Установив степень ограниченности, можно приступить к анализу ее причин.[2]

Производство, как правило, ограничивается каким-либо ресурсом (землей, рабочей силой, фондами и т. п.). Анализ производственных ресурсов обычно дает ответ на вопрос: который из них ограничивает производство в достижении уровня внутреннего потребления, то есть какова причина международного разделения труда. В интересах получения численной информации о причинах международного разделения труда, сложившегося в сельском хозяйстве, в рамках данного исследования был проведен эмпирический анализ относительно 10 стран, производящих крупнейший в мире «чистый» сельскохозяйственный импорт и 20 стран с крупнейшим «чистым» сельскохозяйственным экспортом. Эти страны дают 90% «чистого» сельскохозяйственного внешнеторгового оборота мира. Цель анализа заключалась в установлении причин такого значительного участия этих стран в международной специализации сельского хозяйства. В результате исследований на основе средних данных за 1960—1964 гг. можно сделать следующие выводы:

[1] Чистый сельскохозяйственный экспорт означает баланс стоимости сельскохозяйственного экспорта и импорта.

[2] Определение степени ограниченности практически означает исчисление значения

— каждая из 10 стран с наибольшим «чистым» сельскохозяйственным импортом относилась к числу стран с низкой удельной обеспеченностью землей (0—100 га/100 жителей);
— две трети «чистого» сельскохозяйственного экспорта давали страны с высокой удельной обеспеченностью землей (свыше 301 га плодородной земли /100 жителей).

Анализ ясно показал, что в международной специализации сельского хозяйства очень большую роль играет обеспеченность землей, однако не следует игнорировать и роль прочих факторов.[3]

Анализ показал, что низкий уровень обеспеченности землей препятствует тому, чтобы сельскохозяйственное производство части стран не отставало от роста внутреннего потребления. Предел в данном случае — количество плодородных земель. Ограниченность, таким образом, здесь означает количественные границы. Международная специализация, сложившаяся из-за количественной ограниченности земельной площади, — одна из специфических форм разделения труда. Ибо в таком случае международное разделение труда происходит не потому, что импортирующая страна не в состоянии производить ввозимый продукт, или же ее плодородные территории менее пригодны для этого, чем в экспортирующей стране. *Причина разделения труда в этом случае — недостаточный объем ресурсов импортирующей страны.*

В теории внешней торговли импорт продуктов, производимых также и в импортирующей стране при удовлетворительном уровне сравнительных издержек, называется конкурирующим импортом. При наличии конкурирующего импорта внутреннее производство не возрастает до уровня внутреннего потребления потому, что этому препятствует временный или устойчивый недостаток в производственных ресурсах страны. Во всяком случае, при этом внутреннее производство и импорт являются конкурирующими. Применение понятия конкурирующего импорта в отношении процесса международной специализации, порождающей внешнеторговое обращение представляется логичным. *Назовем поэтому внешнеторговый оборот, складывающийся вследствие количественной ограниченности производственных ресурсов* (в частности земли), *конкурирующим или количественным разделением труда* (в случае планирования — конкурирующей специализацией).

Совершенно иное положение складывается тогда, если импорт вызывается не количественной ограниченностью производственного ресурса, а тем обстоятельством, что в импортирующей стране количество плодородной земли (или другого ресурса) данного качества ограничено. В таком случае

[3] В статье в дальнейшем из числа производственных ресурсов рассматривается только земля. Это объясняется сужением круга анализа. Прочие производственные ресурсы играют подобно количеству и качеству земли значительную роль в конкурирующей и комплементарной международной специализации сельского хозяйства.

импорт вызывается тем, что из-за качества земли импортирующая страна временно или устойчиво не в состоянии производить ввозимый продукт при удовлетворительном уровне сравнительных издержек. Ресурс экспортирующей страны, т. е. качество земли в ней, в этом случае является гораздо более подходящим для производства данного продукта, чем в импортирующей стране. Поэтому конкурировать с этими продуктами внутреннее производство импортирующей страны вообще не может. В таком случае качество ресурсов экспортирующей страны как бы дополняет ресурсы импортирующей. Теория внешней торговли такой импорт продуктов называет неконкурирующим, или комплементарным импортом. Очевидно и в этом случае обосновано применение данного понятия к области международного разделения труда. *Назовем поэтому внешнеторговый оборот, складывающийся вследствие качественной ограниченности производственных ресурсов комплементарным, или качественным разделением труда.* (В случае планирования — комплементарной специализацией).

После обозрения теоретических понятий, рассмотрим как проявляется конкурирующее и комплементарное разделение труда в практике международной специализации сельского хозяйства социалистических стран.

Конкурирующее разделение труда в сельском хозяйстве социалистических стран

Для изучения конкурирующей и комплементарной международной специализации сельского хозяйства мы избрали следующие социалистические страны, регионально близкие к Венгрии:

Советский Союз
Польша
Чехословакия
Германская Демократическая Республика
Болгария
Югославия

Цель исследования состояла в определении влияния, оказываемого двойной (количественной и качественной) ограниченностью земли на объем и структуру внешнеторгового сельскохозяйственного оборота в рассматриваемых странах. Основные результаты исследования могут быть обобщены в следующем.[4]

Имеющаяся в распоряжении отдельных стран плодородная площадь является данной и практически не расширяемой. Вследствие этого уровень обеспеченности землей в отдельных странах весьма различен.

[4] Соответствующий анализ полностью изложен в кандидатской диссертации автора данной статьи «Влияние земли на международную специализацию сельского хозяйства». (Будапешт, 1967 г. Рукопись.)

Таблица 3

Удельная обеспеченность землей рассматриваемых стран
(в 1965 году)
Ед. изм.: 100 жителей

1. СССР	644
2. Югославия	122
2. Болгария	115
4. Польша	90
5. Венгрия	82
6. Чехословакия	80
7. ГДР	56

Источник: Национальные статистические ежегодники; (FAO Production Yearbook 1966)

С точки зрения обеспеченности землей на первом месте стоял Советский Союз, а на последнем — ГДР. Разница между ними в этом отношении приблизительно десятикратная. Таким образом, в уровне обеспеченности социалистических стран землей имеются существенные различия. Эти различия не могут не оказывать влияния на динамику объема внешнеторгового сельскохозяйственного оборота.

Таблица 4

Чистый сельскохозяйственный внешнеторговый оборот рассматриваемых стран
(в среднем за 1960—1964 гг.)
Ед. изм.: валютный рубль/100 жителей

1. СССР	+ 40
2. Югославия	+ 88
3. Болгария	+2390
4. Польша	— 452
5. Венгрия	— 312
6. Чехословакия	—2940
7. ГДР	—4000

Источник: Собственные расчеты на основании национальных статистических ежегодников, внешнеторговых статистических изданий и томов. (FAO Trade Yearbook 1960—1965).

Изучение данных семи социалистических стран подтверждает вероятность того, что между обеспеченностью землей и уровнем «чистого» сельскохозяйственного внешнеторгового оборота имеется стохастическая зависимость. Зависимость между обеспеченностью землей и уровнем «чистого» сельскохозяйственного оборота была рассчитана — с использованием ме-

тода регрессивного анализа — в отношении 26 капиталистических стран, включая исчисление значений функций.[5] Регрессивный анализ показал тесную связь между обеспеченностью землей и уровнем «чистого» сельскохозяйственного внешнеторгового оборота. В странах, хорошо обеспеченных землей, обеспеченность землей, естественно, не препятствует росту «чистого» экспорта сельскохозяйственных продуктов. Страны, плохо обеспеченные землей, вынуждены по мере экономического роста осуществлять все более значительный «чистый» сельскохозяйственный импорт. Подобное наблюдаемому в отношении 26 капиталистических стран явление встречается и в случае рассмотренных социалистических стран. *Социалистические страны с низкой удельной обеспеченностью землей — по мере их экономического роста — осуществляют все более растущий «чистый» сельскохозяйственный импорт.*

На конкурирующее разделение труда, однако, указывает не только сокращение сельскохозяйственного экспорта и увеличение импорта, но также и измерение структуры внешнеторгового оборота. Среди сельскохозяйственных продуктов, ввозимых странами, принужденными к этому в силу плохой обеспеченности землей, во все большем количестве встречаются продукты, производимые в данной стране при более низком уровне производственных издержек, чем в экспортирующей стране, или аналогичном ему. Влияние низкой обеспеченности землей в рассматриваемых социалистических странах особенно хорошо выявляется при изучении структурной динамики внешнеторгового оборота хлебного зерна.

Таблица 5

*Динамика внешнеторгового оборота хлебного зерна в рассматриваемых странах**
Ед. изм.: 100000 долларов

Страна	Импорт			Экспорт		
	В среднем за 1936—38 гг.	В среднем за 1962—64 гг.	Индекс 1936—38 = 100	В среднем за 1936—38 гг.	В среднем за 1962—64 гг.	Индекс 1936—38 = 100
Болгария	—	252	—	80	66	83
Чехословакия	73	1588	2175	155	267	172
Югославия	15	870	5800	198	40	20
Польша	24	1727	7196	194	71	37
Венгрия	43	482	1120	314	84	27

Источник: Собственные подсчеты на основании национальных статистических ежегодников

*Ввиду отсутствия довоенных данных ГДР не была включена в круг исследований.

[5] Результаты регрессивного анализа автор излагает в своей статье «Влияние обеспеченности землей на международную специализацию сельского хозяйства на разных уровнях экономического развития» Közgazdasági Szemle № 12 1967 г.

Рассматриваемые страны расположены в зоне произрастания пшеницы. Наиболее высокие урожаи зерна, а таким образом, вероятно, и наиболее низкие производственные издержки имеются как раз в тех странах (Чехословакия, ГДР), которые производят наибольший импорт хлебного зерна. Очевидно, что уровень производственных издержек по выращиванию хлебов в этих странах является более чем конкурирующим, по сравнению с уровнем производственных издержек в странах, откуда зерно импортируется.[6]

Анализ сельскохозяйственного внешнеторгового оборота Венгрии и остальных рассматриваемых социалистических стран свидетельствовал о том, что приблизительно 90% международной специализации территориально близлежащих социалистических стран носит конкурирующий характер; то есть она охватывает такие продукты — или заменяющие их сельскохозяйственные продукты, — которые импортирующей страной производятся на уровне сравнительных издержек, аналогичном уровню экспортирующих стран.

Крупный импорт хлеба и животных продуктов в Чехословакию и ГДР, зерна — в Польшу и Югославию, продуктов лесоводства — в Венгрию, все это проявления конкурирующего международного разделения труда в сельском хозяйстве. «Чистый» импорт сельскохозяйственных продуктов в эти страны вызван недостатком плодородных земель, по сравнению с потребностями потребления.

Наличие или отсутствие плодородных земель с качеством, более или менее пригодным для производства различных сельскохозяйственных продуктов, является причиной комплементарной формы международного разделения труда, сложившейся между сельскими хозяйствами отдельных стран. Поэтому при исследовании комплементарного международного разделения труда далее рассматривается не объем внешнеторгового оборота страны, а структура оборота по экспорту и импорту.

Комплементарное международное разделение труда в сельском хозяйстве социалистических стран

Из анализа структуры внешнеторгового оборота территориально близлежащих к Венгрии социалистических стран оказывается, что за исключением Советского Союза в этих странах качество земель[7] почти или совсем непригодно для производства на них хлопка, южных фруктов и пряностей, натурального каучука и т. п. Этим объясняется, что эти продукты состав-

[6] Рассматриваемые социалистические страны — за исключением Югославии — импортируют зерно из Советского Союза.

[7] В трактовке автора качество земель не означает качества почвы, а, по существу, тождественно природным условиям.

ляют в рассматриваемых странах 1/3—1/2 часть всего импорта сельскохозяйственных продуктов. Особенно велик удельный вес ввоза основного сырья текстильной промышленности — хлопка, составляющий в Болгарии 32%, в Югославии — 27%, в Польше — 26%, в Венгрии — 26%. Комплементарное разделение труда складывается в первую очередь в странах, качество земель, природные условия которых значительно отличаются друг от друга. Однако между территориально близлежащими странами значительных различий в качестве земель нет. Импортируемый в массовом порядке хлопок, южные фрукты и т. п. ввозятся территориально близлежащими странами из стран, расположенных в тропических и субтропических зонах. Все же рассмотрим международную специализацию сельского хозяйства социалистических стран с той точки зрения, складывается ли между социалистическими странами, располагающими схожим качеством земель, комплементарная международная специализация, и если да, то в какой мере.

Для изучения комплементарного международного разделения труда были избраны социалистические страны, располагающиеся в бассейне Дуная или примыкающие к нему. Сходность их природных условий проявляется в сходности сложившихся в них флоры и возделываемых культур. Если двигаться по этим странам с севера на юг, то — подобно другим странам северного полушария — наблюдается закономерное повышение среднегодовой температуры, увеличивается число солнечных дней в году, растет интенсивность солнечного излучения и т. д. Рассматриваемые страны распространяются от 41° до 55° географической широты. Если в южной части Болгарии и Югославии среднегодовая температура воздуха составляет 13° С, то в северной части Польши она достигает только 7° С. Если в северной половине Польши средняя температура в марте месяце равняется 1,7° С, то в южной части Югославии она достигает 10,8° С. Подобные расхождения наблюдаются также в количестве и распределении осадков. Наиболее сухие области находятся в расположенных вдали от моря и окруженных горами бассейнах. Такой является, например, Большая Венгерская Низменность, в отдельных частях которой годовое количество осадков составляет приблизительно 500 мм. Значительные расхождения в количестве осадков, в числе солнечных дней, в среднегодовой температуре имеются не только между странами, но и внутри отдельных стран. Если же к вышеуказанным различиям в климатических условиях еще добавить и расхождения в макроклимате, зависящем от высоты над уровнем океана, от почвенных условий, от наличия рек и озер, то мы столкнемся с огромным множеством различных природных условий. Различие в макро- и микроклиматическом преобразовании природных условий может быть подытожено следующим образом: если микроклиматические расхождения проявляются в структуре сельскохозяйственного производства и внешнеторгового оборота той или иной страны суммированно, в общей сложности, то макроклиматические рас-

хождения оказывают воздействие на структуру производства и внешнеторгового оборота страны самостоятельно, каждое в отдельности.

Закономерные макро- и микроклиматические преобразования природных условий не могут не влиять на возделываемые культуры. В Чехословакии можно выращивать табак, кукурузу, виноград, абрикосы, картофель, люцерну. Эти же продукты могут производиться в Польше, Болгарии и Югославии. В отличие от стран, крайне отличающихся друг от друга по своим природным условиям, в этих странах почти или совсем нет продукта, который невозможно производить в другой стране. И все же постепенное изменение природных условий от страны к стране оказывает влияние на сельскохозяйственную продукцию этих стран. Польша и Чешскоморавский бассейн уже не относятся к зоне выращивания кукурузы, так как число солнечных дней в году не всегда достаточно для ее созревания. Поэтому в этих районах производится только силосная кукуруза. Посевной материал для ее выращивания приобретается в более южных районах или странах. Подобно этому обстоит дело и с люцерной. Значительная часть Чешскоморавского бассейна и Польши пригодна для ее выращивания. В то же время сбор ее семян сталкивается с гораздо большими трудностями, чем на Большой Венгерской Низменности или же в средней и нижней полосе Дунайского бассейна. В южной части Словакии хорошо произрастают виноград, абрикосы и персики, стручковый перец, помидоры и другие требующие более интенсивного солнечного излучения фрукты и овощи. Хотя эти продукты и могут производиться в Чешскоморавском бассейне и в южной части Польши, однако условия их выращивания, а в результате этого — вкусовые и прочие качества производимых продуктов — отстают от аналогичных продуктов Венгрии, Болгарии или Югославии. Различные фрукты и овощи значительно отличаются друг от друга не только по вкусовым и прочим качествам, но и по сроку созревания. В Болгарии и Югославии ранние сорта овощей созревают приблизительно на 1—2 недели раньше, чем в Венгрии. По сравнению с этим Польша и Чешскоморавский бассейн — из-за различий средней температуры в марте-апреле в 7—10° С — запаздывают более, чем на целый месяц.

Подобное — но, по существу, обратное — положение складывается с теми культурами, которым благоприятствуют более холодные климатические условия. Такими являются, например, картофель, конопля, лендолгунец. Картофель в Чешскоморавском бассейне и в Польше произрастает гораздо лучше и дает более надежный урожай, чем в средних или южных районах Дунайского бассейна.

В Чехословакии на чешской территории в среднем за 1961—1964 годы собирали урожай картофеля в 126,4 ц. На словацкой территории, расположенной южнее и располагающей с точки зрения выращивания картофеля менее благоприятными природными условиями, за этот же период средний урожай картофеля составлял 90,0 ц. В расположенной еще южнее Венгрии

в этот же период с 1 га собирали в среднем 79,2 ц. В Болгарии средний урожай картофеля в 1963—1965 гг. составлял 87 ц. Этот — несколько превышающий венгерский — средний урожай, однако, был получен в высоколежащих, более холодных районах, на землях площадью в 36 000 га, т. е. составляющих 1% посевной площади,[6] причем с использованием огороднических методов возделывания.

С точки зрения влияния изменения природных условий на урожай картофеля показательным является пример Польши. В Польше, расположенной севернее чешских территорий, в среднем за 1961—1965 годы урожай картофеля составлял 154 ц/га. В 1965 году, когда средний урожай картофеля также составлял 154 ц/га, в относящихся к Северной Польше Кошалинском районе с гектара было собрано 166 ц, Щецинском районе — 195 ц, Ольштынском районе — 170 ц картофеля, в то время как в южных Краковском районе — 107 ц и Жешувском районе — 110 ц картофеля.

Подобные же, но противоположные по своему направлению явления, наблюдаются в территориально близлежащих социалистических странах в отношении зерновой кукурузы. В Болгарии средний урожай зерновой кукурузы в 1963—1965 гг. составлял 26,3 ц/га, в Венгрии же в среднем за 1961—1964 гг. — 25,5 ц/га. Производство кукурузы в этих двух странах находится приблизительно на одном и том же уровне. В 1964 году зерновая кукуруза занимала в Болгарии 15% посевной площади, в Венгрии — 24%. В Чехословакии хорошо прослеживается зависимость между урожаем зерновой кукурузы и изменением природных условий. В сельскохозяйственной продукции Чехословакии она играет еще значительную роль. Однако 89% посевной площади зерновой кукурузы страны приходится на словацкие территории.[9] Зерновая кукуруза занимает 0,3% пахотных земель чешской территории и 10% — словацкой. В то же время силосная кукуруза занимает 5% пахотных земель как на чешской, так и на словацкой территории. Как видно, для возделывания силосной кукурузы чешская территория пригодна точно так же, как и Словакия. В Польше, расположенной севернее Чехословакии, выращивание зерновой кукурузы совершенно оттесняется на задний план. В польском Статистическом ежегоднике зерновая кукуруза даже не упоминается среди полеводческих культур.

К охарактеризованным лишь в общих чертах различиям еще прибавляются и микроклиматические расхождения, благодаря которым некоторые территории становятся особенно пригодными для возделывания той или иной культуры. Отдельные районы южного приморья Югославии пригодны даже для выращивания южных фруктов. Производство розового масла в

[6] В Польше картофель занимает 10% посевной площади, в северной же Польше эта доля возрастает до 11—12%.

[9] В 1964 году на чешских территориях было засеяно зерновой кукурузой 13 000 га, на словацких территориях — 170 000 га земли.

Болгарии в долине Арды является специфическим для рассматриваемых стран. Благодаря пригодным для виноградарства почвам южных склонов горных районов (Бадачонь, Токай) вулканического происхождения в Венгрии специфический букет и аромат венгерских вин стал всемирно известным. Плантация хмеля в районе Жатеца в Чехии позволяет Чехословакии осуществлять значительный экспорт. Эти различия в условиях производства несомненно играют большую роль в специализации сельскохозяйственных производств рассматриваемых стран. И все же решающее обстоятельство состоит в том, что каждая из этих стран, по существу, производит те же растения, а в силу этого — и те же животные продукты, что и остальные. *Для специализации сельских хозяйств территориально близлежащих стран, вопреки несомненно наблюдаемым различиям, которыми не следует пренебрегать, характерно совпадение или подобие круга производимых продуктов.*

Исследования свидетельствуют о том, что в результате схожего качества земель во взаимном внешнеторговом обороте пяти стран доля разделения труда комплементарного характера не достигает даже 10%. В то же время эти страны производят широкий импорт продуктов комплементарного характера из стран, крайне отличающихся от них по своим природным условиям (качеству земель). Этот факт также свидетельствует о том, что *с уменьшением различий в качестве земель (то есть с убыванием предполагаемого преимущества в сравнительных издержках) прямо пропорционально сокращается эффект комплементарного международного разделения труда в сельском хозяйстве.*

Рассматривая разделение труда, сложившееся между Венгрией и остальными странами, можно отметить специализацию комплементарного характера в отношении мелких семян и кукурузы с одной стороны, и картофеля с другой стороны. В то же время Венгрия ввозит из Индии крупные партии чая и жмыха; из ОАР — хлопок, стоимостью приблизительно в 6 миллионов долларов; из Австралии — несмотря на большие расстояния — шерсть, стоимостью почти в миллион долларов. Подобно положение и в остальных территориально близлежащих странах. Болгария ежегодно ввозит текстильные волокна, стоимостью в 37 миллионов долларов. Югославия ежегодно импортирует из тропических и субтропических стран южных фруктов, кофе, какао и т. п. на сумму прибл. в 25 миллионов долларов. Расхождения в природных условиях, вследствие которых в одной стране совсем не имеются или же имеются лишь в весьма незначительных количествах земли, пригодные для возделывания той или иной культуры, произрастающей в какой-нибудь другой стране, усугубляют необходимость качественной специализации.

Заключение

Анализ показывает тесную взаимосвязь, несомненно имеющуюся между структурой сельскохозяйственной продукции и внешнеторгового оборота, с одной стороны, и количественными и качественными характерными чертами природных условий, с другой стороны. Недолго могли продолжаться и эксперименты, игнорировавшие практическое значение этих различий и направленные на возделывание хлопка, кок-сагыза или риса на территориях, не удовлетворяющих в силу своих природных условий насущные биологические потребности этих культур. Изучение районов производства картофеля и кукурузы в рассматриваемых странах хорошо показало, что с изменением природных условий меняется и специализация производственных единиц, участвующих в разделении труда, а также внешнеторговый оборот стран.

Сильно отличающиеся по качеству своих земель страны производят такие сельскохозяйственные продукты (например, чай, какао, хлопок, джут и т. п.), которые другая страна вообще не может или может возделывать лишь с гораздо меньшей производительностью. Сравнительные преимущества в издержках производства при этом приближаются к бесконечности.

В территориально близлежащих странах таких крайних расхождений в сравнительных издержках не наблюдается. Здесь в одной стране может с более или менее низкими производственными издержками возделываться картофель и конопля, в другой стране — зерновая кукуруза, семена люцерны или виноград. Международная специализация сельского хозяйства представляла бы собой исключительно простой процесс, если бы требовалось лишь сопоставить, в какой стране какой из продуктов может производиться при сравнительных преимуществах в издержках. В действительности этот вопрос несравнимо более сложен. Анализ внешнеторговой структуры рассматриваемых семи стран подтверждает, что в странах с аналогичными природными условиями качественное международное разделение труда сложилось на явно низком уровне. Невелик круг продуктов, обмениваемых участвующими в разделении труда странами между собой и в силу более низких сравнительных издержек. Качественный обмен наблюдается в больших масштабах лишь в отношении тех незаменимых продуктов, которые в той или иной стране по какой-нибудь причине или совсем не могут производиться, или же производятся в объеме, не отвечающем потребностям.

Низкий уровень качественного обмена объясняется, в частности, и тем, что степень взаимозаменяемости сельскохозяйственных продуктов гораздо выше, чем в других производственных отраслях. Привычки в потреблении отдельных стран сильно отличаются друг от друга, как правило, в результате влияния исторически сложившихся в различных странах структур про-

изводства. В животноводстве кукурузу хорошо заменяют картофель и овес, люцерну — различные виды клевера и наоборот. Если сравнительные издержки производства какого-либо продукта складываются неблагоприятно, то данная страна ищет, в первую очередь, возможность замены невыгодно производимого продукта таким продуктом, который производится при благоприятных условиях. Менее выгодные сравнительные издержки именно поэтому оказывают относительно небольшое влияние на международную специализацию в сельском хозяйстве.

И по другим причинам ошибочно предполагать, что международная специализация сельского хозяйства может основываться на расхождении сравнительных издержек. Страна, стремящаяся потреблять промышленные изделия в объеме, превышающем ее внутреннее производство, может осуществить это лишь в том случае, если стоимость импортируемых промышленных изделий будет покрываться экспортом сельскохозяйственных продуктов. С точки зрения земли как ресурса это означает, что страна, имеющая превышение по импорту промышленных изделий, должна занять часть своих сельскохозяйственных земель под культуры, обеспечивающие превышение по экспорту сельскохозяйственных продуктов. Если для экспортных целей в распоряжении имеется ограниченное количество земель, то вступающая в международное разделение труда страна будет взвешивать и то, по какому продукту можно с наименьшими затратами получить наибольшие валютные выручки, а по какому продукту можно с одного гектара земли выручить наибольшее количество валюты. Послевоенное преобразование международной специализации сельского хозяйства рассматриваемых нами социалистических стран указывает именно на такую тенденцию развития.

Во внешнеторговом сельскохозяйственном обороте рассматриваемых стран господствовал конкурирующий характер. В большинстве стран импортировались продукты, производству которых препятствовала количественная ограниченность земли. Специализация комплементарного характера сложилась между странами, сильно отличающимися по качеству своих земель (а не между близлежащими социалистическими странами).

COMPETITIVE AND COMPLEMENTARY INTERNATIONAL DIVISION OF LABOUR IN THE AGRICULTURE OF SOCIALIST COUNTRIES

N. CSÁKI

The author uses the term "competitive international division of labour" to denote the type of international specialization brought about by the quantitative limitations on the resources of production. By "complementary international division of labour", on the other hand, he means the type of international specialization emerging as a result of qualitative limitations on the resources of production.

In this article the author is dealing with the effects of the supply and quality of land — one of the most important resources of agricultural production — on international specialization in agriculture. On the basis of empirical investigations into the conditions

of seven — regionally adjacent — socialist countries, he proves that both the extent and the necessity of complementary international division of labour in agriculture diminish in direct proportion with decreasing differences in the quality of land. This fact explains, in the author's view, the comparatively low level of a complementary division of labour between the socialist countries situated in regional vicinity to each other. As against this, the motives of competitive international division of labour should be sought not in the differences in the quality of land but in the transitory or lasting insufficiency of the supply of land (the quantity of arable land) relative to consumer demand — brought about by economic growth. It is the competitive international specialization that has proved the primary source of the division of labour in agriculture between the socialist countries investigated.

REVIEWS

A. Bródy

METHODS OF ANALYSIS AND FORECASTING APPLIED IN HUNGARY

The aim of this paper is to present in a popular form some results of the investigations based on exact mathematical and statistical methods which have been published in the past decade in Hungary and seem suited for a description of economic reality. These methods have in their majority not yet been made use of in routine calculations, but practical planning has already drawn on them repeatedly as regards both their methodological and numerical aspects.

This report will be incomplete, as for lack of space I had to select from the ever growing material. Both the points of view of selection and the evaluation and weighting of the material are based on my individual ideas and approach. This is a first attempt to survey a very broad and important field of scientific work and, although done to my best knowledge, it is certainly biassed and unbalanced.

The treatment of the material is intended to correspond to the internal relations between the problems and will proceed from the simple to the more complicated methods. In addition to presenting findings of a major importance, efforts will be made at briefly reviewing the substance of the individual technical procedures and methods. The reader wishing to obtain detailed and extensive information is referred to the bibliography at the end of the paper.

1. Descriptive statistics

It was a widely held view which can still be met that for the foundation of our plans and targets it is sufficient to know the data and tendencies of the past few years — the post-war years at the utmost — and that it is not absolutely necessary to complement the knowledge of these with a precise knowledge of world economic trends.

Owing to these views, in the first decade of planned economy there was a tendency to neglect the continuation, complementing, reconstruction and publication of our historical statistical series and little attention was paid to broad international comparisons. It was but a natural consequence that

even economists were in their majority uncertain and inadequately informed about the real state of the economy and about our relative situation, ignoring the country's place in the development of world economy and not quite knowing whether the direction we were pursuing was on the general highway of economic development or on some side-track and whether we were proceeding at a quicker or slower rate than was beneficial or normal from the development point of view.

Comparisons as well as a clear survey of the country's situation and the prevailing trends of economic development were rendered extremely difficult — in addition to the usual methodological difficulties involved in the comparison of statistical data — also by the artificial character of our price system. What I mean by this is not the fact that the system of relative prices was different from that in the other — capitalist or developing — countries, since this is a usual and more or less surmountable difficulty in statistical comparison. But we had a price system which was entirely detached from the domestic inputs, its formation having been enforced by a voluntaristic economic policy which had wrongly assessed the real economic needs and possibilities of the country.

Under such conditions it is only understandable that the attention of economists had turned to the comparison of indicators expressed in physical terms. With long and strenuous work F. Jánossy [13, 14] and E. Ehrlich [8] succeeded in developing a method with the aid of which the level and rate of economic development became measurable or could be at least approached without the intervention of the price system. The main idea of their method was that economic development, which can be characterized by the indicator of per capita national income, is closely related to certain production and consumption indicators expressed in physical units of measurement. More exactly, though in this context there are always differences between the individual countries (and it is particularly these differences which enable us to characterize the individual traits of the national economies), a well chosen set of physical indicators can, as an aggregate, determine the level of national income with sufficient accuracy. By further developing the method, E. Ehrlich made it suited for the comparison not only of the data of different countries at a given point in time but also for the analysis of dynamic development, of changes over time.

The following figure is an important and highly informative result of E. Ehrlich's investigations. It presents the comparable values of per capita national income in 24 capitalist countries in 1937 and 1960, making thus also the data on Hungary's situation and average growth rate comparable.

Although Hungary has as yet not published any national income indicators in a system suitable for international comparison, it may be stated that the results of the method reviewed are not remote from the last official

records published by the Central Statistical Office, which were compiled according to special Hungarian points of view (and several times revised). The growth rate of the indicators relating to industry and to railway transport has been conspicuously rapid at the expense of other indicators and the lag is particularly great in the case of the number of passenger cars and lorries. In the period under review there were six capitalist countries where the growth rate was above the Hungarian (Austria, Finland, Canada, Italy, Sweden and the USA).

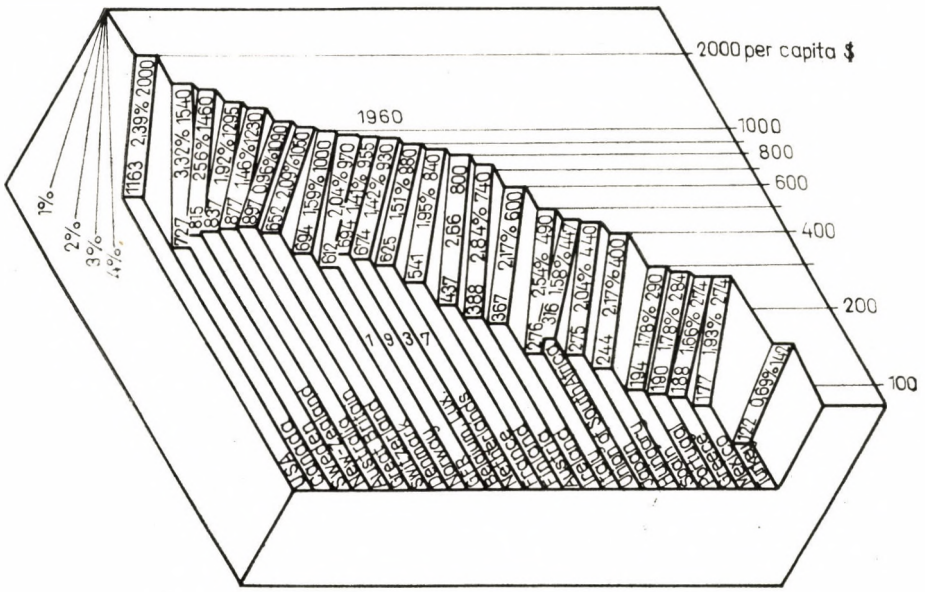

Fig. 1

Ehrlich's investigations have thus produced a reliable and relatively quickly and exactly calculable method to compare development levels independently of the price system. Revealing the typical, general direction and proportions of economic development, they have, at the same time, yielded numerous directives and basic points for long-term planning.

In a later and more detailed study [9], Ehrlich pointed out, in addition to many interesting observations of details, that the growth rate of Hungarian industrial production corresponds — both in the long and the short run — to the average of the socialist countries and is, as has been mentioned, quicker than the growth rate of the economy as a whole. Therefore, in all these countries the discrepancy between the industrial and agricultural growth — although varying in extent — is growing. This country, too, was characterized by an all too rapid reduction in agricultural employment, with labour streaming primarily into industry and the employment in services

essentially stagnating. While the employment ratio of the service sector is growing both in capitalist and socialist countries at an annual rate of half per cent, in Hungary it has remained essentially unchanged, since 1900.

Very important of Ehrlich's finding are those which prove — in agreement with I. Berend's study on economic history which will not be treated here — that the changes in the industrial pattern of Hungary correspond to a concept made obsolete by history, that of the England of classical capitalism or the USA before 1905, and characteristically deviate from the general

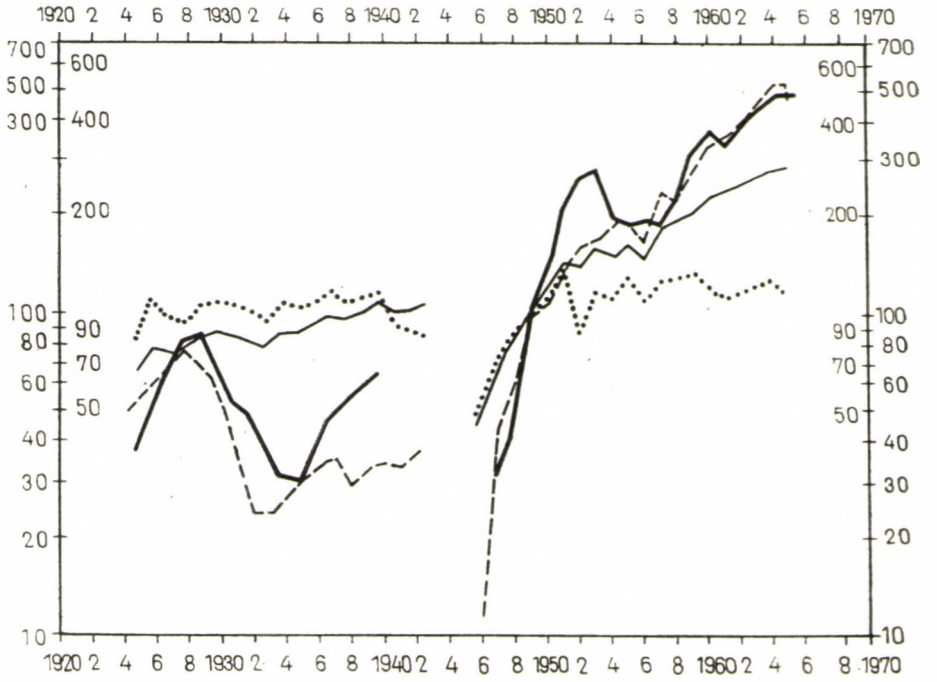

Fig. 2

trends in modern industrial growth. The production of steel, energy carriers and building materials is rising too steeply, whereas transportation, as well as the use of the products mentioned is inefficient.

In the domain thus explored in greater detail, it became also possible to use more simple and traditional statistical techniques, the expediency and reliability of which had justly been doubted earlier. A case point is the simple linking of time series (pre-war and post-war series) by means of relatively primitive methods. The lengthening of the series as well as their extension to the years 1946 to 1960 [7] (see Fig. 2) has added to our knowledge of several important problems. Two things have become obvious. First, that

the reconstruction period with its extremely rapid growth rate of 25 per cent p.a. lasted not till 1948/49, as we had originally believed, but ended much later, in the course of 1951. On the basis of correct periodization we can no longer speak of growth decelerating after 1952 — as a matter of fact, the rate of growth is becoming more and more smooth and has even slightly increased in recent years. Secondly, it has become possible to observe that the wide fluctuations in investment activity are the consequences of a cyclical development in the inter-war period, consequences which could not be eliminated and have become even accentuated to a certain extent.

Further research work, inspired by these investigations and carried out with a greater apparatus first by the Central Statistical Office and later by

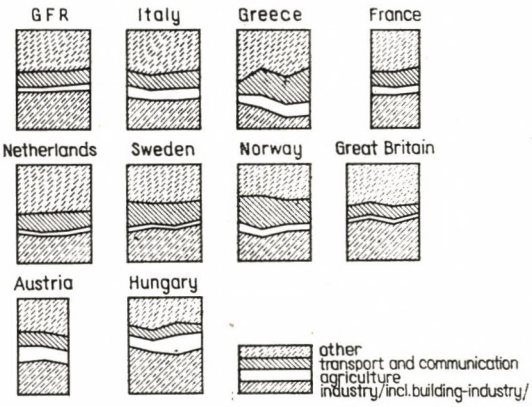

Fig. 3

the Economic Research Institute in the framework of a program sponsored by the Economic Committee for Long-Term Planning have added several important details to this general picture. Of particular importance are, however, the investigations which have disclosed the fluctuations in the level and sectoral distribution of investments. It is obvious, that no even and smooth development can be attained unless investment activity, this motive force of development is also evenly growing both in its entirety and as regards its internal proportions, its sectoral distribution. In this field, M. Mandel's investigations [18] have pointed, if not to the roots, at least to the grave manifestations of the evils. His study — from which Figures 3 and 4 showing the fluctuations in the sectoral distribution of investments are taken — clearly reveal the basic problems and the background of a development full of inequalities, tensions and difficulties. The figures make it clear that — in spite of the planned economy — the inequalities and fluctuations were graver than in some market economies.

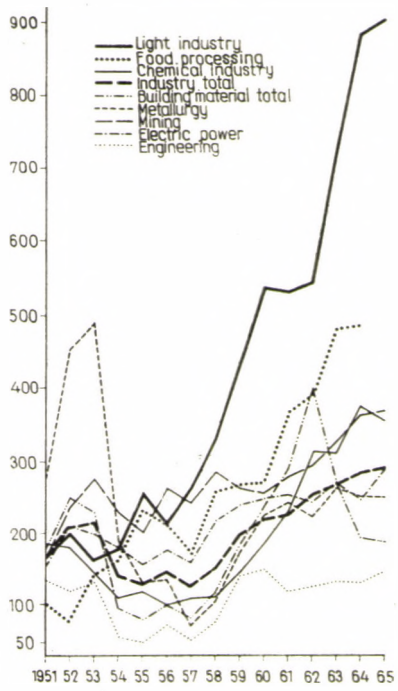

Fig. 1

2. Mathematical statistics

With the increasing body of available data and the comparable and well constructed time series also the more complicated statistical techniques became applicable. The theory of time series enables us to find out and to quantify the principal laws inherent in the time series and to sort out the trend and the other — accidental and seasonal — factors in a more or less accurate manner. A new branch of the theory of time series, spectral analysis, is even suited for an exact measurement of the seasonal components, that is, of various cycles and fluctuations. Now, if the constancy or relative constancy of such laws may be assumed also for the future, the time series analysed can be projected into the future to determine the most likely development. This operation, which may be performed by various means and on the basis of diverse assumptions, is called the extrapolation of the time series and is in a simpler or more complicated form an indispensable primary tool of any kind of analysis, forecasting or projecting.

Mrs. J. Benedecki worked out in her book [4] the trends in national income and its components, and determined the linear and exponential trend functions best fitting to the data series, though not using them for forecasting, only for analysis. She too, has found that in the sixteen years investigated accumulation, and within it, the growth of fixed assets was considerably

quicker than that of national income. I can, however, not agree with the main conclusion, namely, that only 20 per cent of the growth may be attributed to increased employment and the rest is a consequence of technical progress (growing supply and utilization of capital equipment as well as structural changes). It is a generally accepted fact, borne out also by other investigations, that in the period concerned the Hungarian economy, and especially industry, developed mainly in an extensive way. The main source of growth was, accordingly, the increase in manpower employed, the creation of new employment, and only to a lesser extent improved productivity performance. Mrs. Benedecki arrived at her conclusions partly because of the distorted price system used (which underrates agricultural and overrates industrial productivity) and partly because her analysis was performed in a global manner, in respect of the economy as a whole, instead of a series of sectoral investigations. Her wrong conclusions clearly illustrate the fact how difficult correct orientation was rendered by the price system which served the economic policies of the fifties and whose disproportionalities shall be reverted to below; how desorientating it proved in trying to assess the real economic processes.

More thorough work was performed by Magda Ács, who carried out trend calculations and forecasting for the 1970—1985 long-term plan of the national economy [2]. Subjecting to analysis 13 time series, with those of national income, the consumption fund, the accumulation fund, investment and foreign trade among them, she extrapolated them in a way as to enable to work out a consistent plan balance of the sources and distribution of national income in two major variants.

Analysing the time series she found that the indicators connected with investments, particularly those of construction, show extremely wide fluctuations. The relatively most stable time series are those of consumption and foreign trade. Due to the fact that the investigations included the data of the 1950—51 reconstruction period, the authoress found — incorrectly, in my opinion — that the growth rates were diminishing; even so, the time series of investments and foreign trade with non-socialist countries (exports and imports alike) do not show any decline. This proves that there is a certain tendency in these data do diverge from the general rate of growth, a phenomenon which cannot be considered healthy. As regards the future, in the fifteen years 1970 to 1985 a duplication of national income may be expected which would correspond to a compound average growth rate somewhat below 5 per cent. For my part, I believe that a somewhat higher growth rate is attainable, particularly, in the first part of the period when, in my view, even an annual 6 per cent may be achieved and that somewhat slower, intensive development is likely to ensue only after the full completion of industrialization, with the proportion of agricultural population having decreased to a level of about 10 per cent.

3. Aggregate growth models

A combined analysis of the main data relating to the economy as a whole — interdependent time series of production, consumption and accumulation — can further our understanding of the laws and interrelations of economic progress. Now, we are no longer dealing separately with the individual time series, but investigating a mathematical equation — a model, if you like — which embraces also the interdependences of the phenomena investigated. The common starting point of such aggregate models is the realization that the growth in consumption and, therefore, that in production, requires accumulation and investment. By including further factors (such as the trends in employment and productivity, or the changes in technology, or the feed-back effect of the living level on production, etc., etc.), most diversified models can be created, suited for the quantification of certain very important real interrelations. In this field, which promises great possibilities, scientific research started rather late in Hungary. Although some important results have been achieved in the theoretical field, numerical solutions were obtained in practice only in the sphere of application of the model of M. Kalecki, the distinguished Polish economist. The model has been selected probably because it had already been used both in Poland and Czechoslovakia for the investigation of the problem of smooth growth. (Actually, the highly uneven, nearly cyclical trends mentioned in connection with Hungary could be strongly felt in these countries too, and continue to cause much distress to economists to the present day.)

In addition to determining growth due to investment, Kalecki's model contains two further indicators, that of growth independent of investment (i.e. attributable to the operation of the economic mechanism, to organization, training, skill, etc.) and that of reduction in output due to scrapping of productive equipment. Analysing the Hungarian data series and comparing them with the corresponding data of the neighbouring countries J. Horváth [12] arrived at the conclusion that similarly to the situation there, in this country, too, the growth-retarding effect of the old mechanism on production was presumably making itself increasingly felt. In other words, the indicator of growth independent of investment was negative, which resulted in the adverse effect of putting a brake on growth and reducing the efficiency of the total process.

In the further course of his analysis he also pointed out that, since the shortage of labour (mainly that of skilled and highly qualified manpower) is increasingly felt in the Hungarian economy, a higher investment rate is not certain to lead to a higher growth rate. Efficiency is most adversely affected by fluctuations in growth rate. Now, a smoother rate cannot be realized overnight; its attainment will require some longer period of time,

corresponding to the average life-time of fixed assets, that is, 10 to 15 years at least. As a matter of fact, fluctuating investment in earlier periods has disturbed the uniform age distribution of productive equipment to an extent that it will take a lengthy period of purposeful and balanced anticyclical investment policy to remedy the situation.

The analysis based on the aggregate growth models has thus supplied a proof of the fact — established also by means of simpler methods — that the uneven rate of development of the Hungarian economy was at the root of many economic difficulties. It has led, however, to a more profound and thorough understanding of the law that inequality bears new inequalities and that the attenuation of fluctuating economic indicators is by far not so easy as could be superficially thought.

4. Production functions

The production function expresses a relationship of technical character, the volume of output as a function of the volume of inputs necessary for production on the given level of economic development. As opposed to the concept applied in the input-output tables, which will be dealt with later and where simple proportionality between input and output is assumed, here we are generally looking for a more complex relationship, describing with high accuracy the interrelations existing in practice. However, since the relationship is in the first approximation actually linear, with only small deviations, it is rather difficult and problematic to fit a more precise function to the statistical figures. Investigation is rendered particularly difficult by the fact that, although there are established statistical techniques for precisely fitting some previously given function to given data, there exists as yet no theoretical or statistical method to choose the appropriate type of function, a choice that will, of course, affect the results to no small extent. Kornai-Wellisch [17] and Rimler [20, 21] are rather sceptical. According to Rimler, though we may choose the "best" types of function, we cannot prove whether the "best" is good enough to describe the characteristic events of the past with sufficient accuracy and concreteness and thus whether it is suited for extrapolation.

Szakolczay and Stahl [24] are, on the basis of their investigations, more confident as regards this method, though the conclusions drawn from rather short time series lead them to the opinion that their results are insufficient to provide a basis for programing the central allocation of resources.

In an earlier study based on less sophisticated methods, Szakolczay [23] has nevertheless reached the acceptable conclusion, supported also by other investigations, that the production/investment ratio — the inverse of the capital/output ratio (*ed. note*) — has diminished in the majority of industries, which means that the efficiency of investments has deteriorated. A rather

high proportion of investment funds was allocated to industries which could not utilize investment to the full and with a sufficient degree of efficiency. Moreover, the growth of production was hindered in some branches also by marketing difficulties.

It seems probable that further progress in the field of production functions, if possible at all, can take place only on the basis of longer, standardized time series of a higher quality than those so far employed.

5. Econometric models

The econometric models are generated by increasing the number of equations fitted to the statistical data, or, more exactly, by simultaneously estimating all coefficients of the mathematical equation system determining the system of interrelations of the most important macroeconomic indicators. In this country, it is the Laboratory for the Economic Application of Mathematical and Statistical Methods (attached to the Central Statistical Office) that is engaged in generating, computing and evaluating such models under the direction and on the basis of the concepts of Z. Kenessey, E. Theiss and L. Halabuk [1]. Since this work is of comparatively recent standing, experiences are scarce and experiments are carried out mainly with simpler variants of these models which have proved more or less useful in the capitalist economies for short-term forecasting. A serious problem is presented — in addition to the theoretical problems due to the obviously different operation mechanism of the socialist economy — by the relative shortness of our series, their shortcomings and the inconsistencies in comparability arising from the changes in the price system or from organizational changes.

Particular interest deserve the investigations which make an attempt to assess the effect of changes in certain parameters of economic policy by means of simulating the chain of ensuing effects. A report by Kotász—Nyáry—Theiss—Kenessey [26] on these computations may be found in the series "International Methodological Publications". The authors have found, e.g., that a 5 per cent increase in real income would — with an unchanged level of employment — generate a growth of 4.3 per cent in national income, one of 5.4 per cent in personal consumption and one of 9.5 per cent in imports. Though the authors stress the experimental character of such and similar findings, they are not in contradiction with general economic theory. A further point in favour of such models is the fact that under the conditions of the new economic mechanism there is a need for exact calculations which enable the quantification — at least as far as direction and order of magnitude are concerned — of the expectable impacts of operative interference.

6. The input-output table

In order to facilitate the handling of the mass of data which is rapidly growing with further elaboration, it will become necessary to simplify the mathematical apparatus as far as possible and to generalize the picture formed on the interrelations of the data. Such a really simple system of interrelations is provided by the input-output table. It is based on the assumption that the needs of certain branches or industries within the economy are proportional with their volume of production. This simple approach, which may be accepted as a first approximation, is very old; as a matter of fact, its origins can be traced back to Quesnay's and Marx's famous reproduction schemes.

In the light of statistical data the fundamental theoretical concept has proved correct. Although no strictly fixed ratios exist between the outputs and inputs of the individual branches or sectors, yet these internal proportions or, to apply the specific term, norms, normatives or coefficients change relatively slowly. It will, therefore, be no grave mistake to assume that they would not change over a shorter period of 2 to 3 years and that for a longer term of 5 or 10 years their expectable changes could even be planned with more or less accuracy.

The statistical tables compiled in this manner and the mathematical procedures based on them have enabled and furthered very extensive investigations and analytical work. Especially important were the possibilities offered for the analysis of the internal proportions of the price system. It has already been mentioned that in the fifties the price system in Hungary became detached from the input proportions. Now, the input-output table provides an opportunity to disclose the contradictions and inconsistencies inherent in any price system. These distortions in the Hungarian price system were intensively dealt with first by P. Havas [11] and then by S. Ganczer [10]. They have shown, among other things, that the domestic users, mainly industry, buy import articles much cheaper than their countervalue has cost the economy to produce. The prevailing price system shows the weight of industry in the economy to be substantially greater than in reality and underrates the role of agriculture. Due to this situation public opinion, even among economists, overestimated the industrialization of the country and underestimated the role and weight of agriculture. The authors have shown also the contradictions inherent in the price structure of the consumer goods and offered a calculation method as well as concrete calculations for the ways and proportions of improvement.

A similarly valuable opportunity has been provided by the input-output table for international comparisons. Analysing the pattern of our foreign trade and comparing it with the data of the Common Market member countries, compiled in a similar system, M. Augustinovics arrived at the following important conclusions.

Considering the export volume/national income ratio Hungary occupies a middle place between the great West-European countries with a rather closed economy and the smaller ones with an open economy. However, in the case of Hungary, participation in foreign trade has failed to bring about the specialization, the marked division of labour that would be warranted by the volume of trade. The pattern of social production is thus little affected by the exchange of commodities through foreign trade and remains near autarkic in its proportions. Although Hungarian exports are more labour intensive than imports, the difference is negligible. Our purchase-tax policy acts towards restricting trade, while in the Western European countries examined it serves as a lever to promote foreign trade. The import content of consumption is relatively lowest in Hungary, with foreign trade primarily serving accumulation, not consumption. The relative degree of capital supply to agriculture is low in Hungary as regards order of magnitude.

Further important work has been carried out by A. Rácz (Central Statistical Office) who reconstructed the input-output tables for the years 1959 to 1964 and made them comparable as well as by Zs. Ujlaky (National Planning Office) who processed the data of foreign trade in suitable detail. At present, statistical work is centred on the assessment of investment coefficients; this is necessary, among others, for rendering the tables dynamic — a subject to be treated later.

Finally, S. Németh examined in his dissertation the use of input-output tables in planning [19] and came to the conclusion that naive forecasting with stable coefficients will yield as good an approximation of reality data as the balances planned in the traditional way with the aid of detailed calculations. Mechanical forecasting preserves the consistency of the table and yields in some fields decidedly better results than traditional planning. If, therefore, planning work were concentrated on the most important inter-industrial relationships and other relations of minor importance were extrapolated — an operation the exact methods of which were simply worked out by Szakolczay and Vásárhelyi [25] — a planning tool could be obtained whose accuracy would considerably exceed that of the traditional methods.

Also worth mentioning is the work of the Institute for Economic Planning where it is envisaged to draw up an input-output table for 1898. The table which is now taking shape will enable the performance of analysis and the drawing of conclusions of high importance from the point of view of economic history and will contribute to widening the statistical basis of long-term planning.

7. Programming

If now the scope of data to be included in the calculations is extended further and if, in addition to the production technologies actually employed in the individual sectors, the alternative technologies — which could be introduced into the economy, — are also taken into account, i.e., if all the possible production processes are listed, the input-output table thus extended will comprise all the data necessary for the application of linear programming. This procedure offers great help in planning, enabling as it does to decide rigorously the technological solutions and production trends which are optimal from the point of view of attaining the objectives set in the economic plans.

The calculations will not only determine the optimal program and the corresponding optimal allocation of the resources but also yield other valuable indicators, the so-called shadow prices. The shadow prices facilitate the relative evaluation of resources, showing the results attainable with an additional unit of a scarce resource (e.g. one addition to staff or one forint additional investment).

The first analyses performed with the aid of programming really relied on an extension of the input-output table. The proportions of the economy were analyzed by Gy. Simon [22] mainly from the aspect of prices and by Zs. Ujlaky and J. Kornai from that of the production programs [27].

Gy. Simon has found that the relative shadow prices are nearer to the proportions to be found on the world market than those of the domestic prices in 1961. It has also turned out that the major wage proportions are not in harmony with those of the differential yields of labour — Hungarian price formation undervalues the use of live labour, particularly of highly qualified labour. It could also be stated — in accordance with other calculations — that with the given domestic production pattern and foreign trade relations one rouble is roughly equivalent to two-thirds of a dollar. Repeated calculations by Zs. Ujlaky and J. Kornai have pointed to the fact that the foreign trade/production ratio may be even too high, and yet failing to lead to greater participation in the international division of labour. On the basis of optimization results it has been repeatedly proposed to modify the relative proportions of the external markets. (Already M. Augustinovics's calculations mentioned above have drawn attention to this problem and the numerical dollar/rouble parity worked out by Simon and others also pointed in this direction.) From recent computations aimed at providing a foundation for the 1970—1975 plan, a criticism of the too rapid development of industry — particularly of some traditional and not too efficient branches — has also emerged. This problem will be reverted to in connection with the dynamic models.

More substantial results than those reviewed have been obtained with the aid of the "two-level" calculations performed by J. Kornai and associates [15]. These results are, as a matter of fact, experiences gained in the course

of several years' work based on a large-sized model system covering several thousand activities and including several thousand constraints. The "two levels" of the model serve a twofold objective. On the one hand, desaggregation of the task enables us to work out programs of a dimension that would otherwise exceed the possibilities offered by the computers now available in this country. On the other hand, by inserting "sub-models", decentralization of planning becomes possible and the individual sub-models may be constructed at the appropriate places and by the persons with adequate knowledge and information at their command. Some of the important economico-political findings obtained in the course of this work, are the following [16]. An improvement in the dollar balance can be achieved without any considerable modification in the rouble balance. But the key problem remains to increase exports, with import saving playing but a secondary role. Therefore, exports to capitalist countries should be increased whereas those to socialist countries should be kept on an even level or decreased. The main sources of increased exports must be the food industry and agriculture; the export of light industrial products appears less profitable. It will pay considerably to reduce imports of engineering and light industrial products, and also engineering exports to socialist countries may be substantially reduced. The living level can be considerably raised by shortened working hours and increased consumption of foodstuffs and clothing; however, every 1000 forint added to consumption will deprive the balance of trade of 21 dollars. In the investment field, new plants with new technologies should be given priority.

All these are but summary statements, relating to the whole of the economy. Those interested in the subject may find a very detailed material in the reports analyzing the optimum programs, the trends in the technologies to be adapted, and the shadow prices of the individual industries.

8. Dynamic models

Programming provides an excellent and indispensable tool for selecting the technological processes to be employed and working out the main trends of investment policy. It seems, however, that it does not offer a satisfactory means to anticyclical investment policy. In my opinion, the dynamic variant of the input-output table including investments and the full reproduction process of labour is more suited for this purpose. In this field research is still in the initial stage and report can be made only of the first experimental calculations [6] in the hope that by widening the data basis of the calculations it will shortly become possible to publish some more detailed results.

The calculations performed for 1961 and still relying on rather inaccurate data have nevertheless yielded some instructive lessons as regards both the production pattern and the price system.

The calculations have shown the volume of both industrial production and foreign trade to be greater at the expense of the other sectors than would be safe from the point of view of the equilibrium of the economy. The factor price of the foreign products was low (which was obviously the cause of the strong pressure on imports) and, at the same time, labour was undervalued — even with wage-bill taxes (to be paid by producers and non-deductible) taken into consideration.

Similar calculations [5] have also revealed the fact that the exaggerated development of industry and foreign trade was no coincidence. The traditional co-ordination of the plans of different industries with the aid of balances, although suited to bring about so-called "market" equilibrium and secure a certain consistency of the plans does, unfortunately, not promote the emergence of a real long-term equilibrium and usually tends to increase the economic tensions existing in the base period. There may be a feeling that an increased rate of investments was incorrect, or that the contradictions between industrial and agricultural development were increasing, but this will not prevent the traditional planning methodology from channelling the numerical forecasts in an unbalanced and unequal direction and from causing — in spite of the planners' best intentions — the unequalities to become *planned.*

Finally, a few words about the shortcomings in this field of work. It must have occurred to the reader that, in spite of the rapid progress made by some types of research and the attained results, outstanding sometimes even by world standards, in other fields, e.g. in that of the important aggregate growth models or the econometric models and production functions, hardly much investigation has been carried out in this country. Work has already started in the field of consumption forecasting — I could have reported on some initial and promising results had they any important bearing on economic policy. Models of the regional allocation of production, of urbanization, training and education, and of the changes in the mode of living are, however, missing and their lack makes itself felt in our whole planning work. Let us hope, however, that creative work will sooner or later start also in these fields since the questions involved cannot be avoided, particularly not in long-term planning.

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B. KÁDÁR

ECONOMIC PLANS AND PROBLEMS OF THEIR IMPLEMENTATION IN DEVELOPING COUNTRIES

Research workers and experts from CMEA countries engaged in the study of the problems of developing countries held a conference in Budapest from 3rd to 7th March, 1969 to discuss some aspects of economic development in Black Africa. The subject matter of the conference was: "Economic planning and the problems of implementing government decisions in Black Africa".

Choice of the subject was justified both by numerous unexplored questions in this field of research and the urgent requirements of practice. Until recently, the interest of economists and politicians has been primarily engaged by the problems of planning; in the early sixties comprehensive planning of economic development was spreading at a rapid rate. Difficulties of growth and the economic and political tensions emerging in the past few years have, however, made it clear that a drawing up of plans was in itself not enough to accelerate socio-economic progress. Results of several concrete investigations have shown that the increasing difficulties and the deviations from planned development were to a large extent due — besides erroneous planning conceptions — to inadequate capacity to carry the plan into effect, a factor that may impose no lesser limitations on planning than e.g. limited investment funds or scarce foreign-exchange reserves. Experiences up to the present have proven that although it is possible to work out mathematical models, conceptual systems and plans summarizing the economy's internal laws of motion, the success of even the best plan will be decided by factors operating in entirely different spheres of activity (e.g. degree of consolidation in political power, behaviour of those participating in economic activity, external influence of socio-political character, regional and tribal conflicts, etc.). Fifty-one papers were submitted to the scientific conference, of which the Soviet delegation presented nineteen, experts from the German Democratic Republic twelve, the Hungarian delegates ten, the Polish delegates six, the Czechoslovak delegates two and the Romanian and Bulgarian delegations one each. The papers presented covered essentially three major subject groups, embracing the internal and external aspects of economic development and the problems emerging in the individual countries in connection with the implementation of economic plans.

In the course of the debate on the internal economic problems of plan implementation, it was pointed out by several economists — such as *Vrany* (Czechoslovakia) as well as *Kollontai*, *Bessonov* and *Tretyakov* (USSR) — that the practical results of comprehensive national economic planning had fallen considerably short of expectation, a fact that ought to press the planners to seek new ways. It was not possible to make direct use of the socialist coun-

tries' planning experiences; the plans had to conform to the special environmental conditions, possibilities and circumstances. *Simai* (Hungary) pointed out that the socialist countries had so far influenced to a modest degree only the planning methods of the African countries. The failure of the plans inspired by Western methods should not warrant a total dismissal of the experiences of Western planning.

In the course of analysing the causes of deviations in actual practice from the plan targets, the papers submitted by *Bognár* (Hungary), *Smirnov* (USSR), *Kollontai* (USSR) and the Centre for Afro-Asian Research of the Hungarian Academy of Sciences seek an explanation for the plans' failure in the inefficient organization of implementation. The contributions of *Linsel* and *Breetzman* (GDR) and others, on the other hand, reflected the view that the mistake was in the planning concepts themselves and that the plans were more or less condemned to fail from the moment they had been drawn up because planning could be carried out successfully only after social changes, and in the case of the Black African countries pursuing essentially a capitalist course no effective planned economic development could actually be expected.

This question afforded an opportunity to discuss the attitude of researchers in socialist countries to the economic plans of the developing countries. According to some views, due to the capitalist character of the measures and organs serving the purposes of plan implementation in the countries pursuing a capitalist course and embedded into the capitalist world economy, it was not the task of researchers in socialist countries to work out recommendations for improving the methods of plan implementation, because under the given conditions such advice would only help consolidation of capitalist development. It was, however, strongly emphasized that doing away with socio-economic backwardness required a comparatively long time of historical transition, in the course of which scientific activities of the socialist countries ought not remain confined to a critique of the capitalist course but must actively cooperate in overcoming the backwardness by providing advice and submitting proposals.

Prof. *Bognár* (Hungary) emphatically referred to the dangers of plan fetishism, pointing out that the plan must not be considered as the exclusive symbol of a socialist economy and that it must not be endeavoured to create a socialist economy by means of a plan. Both socialist humanitarianism and history oblige us to foster economic development by sharing our experiences with the developing countries. The plan, he said, was but a framework, the expression of a concept of economic policy; experience has shown that the decisive link consisted in working out an economic policy rather than in drawing up a plan; it made, accordingly, no sense to draw up a plan containing a large dose of quantitative methodological prescription and not enough economic strategy.

According to *Kollontai* (USSR) and *Bessonov* (USSR), it seems expedient to combine long-term estimates with programs of a less wide scope, concerning mainly investment and covering a shorter period of time. *Tretjakov* (USSR) also called for reduction of the scope of plans, considering the setting of crucial targets more desirable than the drawing up of comprehensive plans.

In the sectoral approach to the problems of plan implementation, those of agriculture — considered by *Gorzelak* (Poland) and some other delegates the most critical and difficult field in this respect — were given prominence. *Spirt* (USSR) analysed the effect of scientific and technical progress on agriculture, *Dobosiewicz* (Poland) was dealing with the role of the cooperatives, *Kemenes* (Hungary) with the possibilities of accumulation in agriculture, *Tretjakov* (USSR) with the problems of the traditional sector not engaged in commodity production. *Andorka* (Hungary) emphasized that no planning can be efficient which fails to take into account the conditions of the traditional sector and the social circumstances, since the main obstacle to economic progress is arising from the social conditions of the traditional sector and from tribal conflicts. All those contributing to the debate stressed the necessity that researchers in socialist countries should pay more attention in the future to the problems of agricultural development and of the traditional sector.

Keen interest manifested itself also in the problems of schooling and professional training. *Nowiczki* (Poland), *Jasinsky* (Poland) and *Mándi* (Hungary) emphasized the importance of the role of schooling in economic growth. The three papers were unanimous in stressing the requirements of higher educational standards, greater efficiency and primacy of practical aspects in education against extensive qualitative development aimed at perfection.

The interest of the section dealing with questions relating to the *external* economic aspects of development centred on two large subject groups: the problems of utilizing external resources and the analysis of the effects of international division of labour on economic development.

Several papers — notably those by *Rédei* (Hungary), *Prokopczuk* (Poland), *Goncharov* (USSR) and *Kádár* (Hungary) — dealt with the role of external resources in accelerating the rate of economic growth in the developing countries. At present, it is one of the basic problems of economic strategy in individual developing countries whether they can rely on external resources, and, if so, at what price; can the external resources exert a beneficial effect on socio-economic development or will the developing country concerned have to pursue the path of isolated and introvert economic development. Decision of this problem entails consequences which affect not only the growth rate of developing countries but also the further development of the entire international division of labour. The papers dealing with the problem — although differring in nuances — all emphasize the importance of external resources. *Goncharov* was most explicit in criticising in novel terms the biassed

views on external resources which had formerly prevailed, demonstrating on the basis of a detailed analysis the decisive role played by external resources in financing the economic development programs of the African countries.

Rédei (Hungary) called attention to the insufficiency of external resources flowing into African countries, to their stagnating level and decreasing efficiency. He strongly critized the concept of so-called global strategy proposed at the 2nd UNCTAD, based exclusively on humanitarian viewpoints and motives of economic interest. This concept would see the main source of tensions in our present era in the immense difference in development level between the advanced white North and the backward coloured South, and calls for joint action on the part of the advanced countries without making any distinction between the socialist countries on the one hand and the capitalist countries responsible for the economic backwardness on the other. In *Rédei*'s opinion, what would contribute to quickening the flow of external resources into the less developed countries was not concentration of efforts on cooperation between capitalist and socialist countries but a backing of the demands of developing countries by means of political struggle, by claiming historical reparations and by forming a unity of political action between the socialist and the developing countries. The theory of global strategy was criticized in a contribution by *Prokopczuk* (Poland) in similar terms.

The present author was dealing in his paper with the tasks of economic policy and organization to foster a more efficient utilization of external resources, examining the possibilities to increase the degree of efficiency, with special regard to forming external relations of a more up-to-date pattern, by regrouping the aims of relief, developing the concepts of relief utilization, and reorganizing in suitable form the administration of relief and aid. *Breetzman* (GDR) and *Kroske* (GDR) called attention to the dangers involved in a reliance on foreign private capital. *Kollontai* (USSR) voiced the opinion that it was not possible to abolish the monocultural sector, which is the African countries' principal source of foreign exchange, under the pretext that it constituted a colonial heritage and was controlled by foreign interests. The securing of foreign exchange resources was, in his opinion, a basic factor from the point of view of development in the years to come. The economic and political attitude of the government to the private sector and foreign capital should be characterized by moderation and patience. *Dobosiewicz* (Poland) would not consider it desirable either to exclude the foreign companies from developing agricultural production in the African countries.

Several papers were dealing with the international division of labour and the development of international trade. *Cukor* (Hungary), analysing the part played by import substitution and export development in industrialization, would consider import substitution as a general and natural course of industrialization for the so-called late-comer countries. The author emphasized

that import substitution may take place not only on the basis of comparative advantages but also on that of so-called comparative disadvantages. He would not consider industrial exports a dynamic element of industrialization; in his view, it was inconceivable that industrial exports of developing countries should be growing at a higher rate than the volume of their industrial production. In connection with *Cukor*'s paper *Iványi* (Hungary) pointed out that the experiences of recent years have not supported the views which underestimated the importance of external markets. In the course of the past five years, the rate of increase in industrial exports had not only not fallen short of the growth rate in industrial production but exceeded the latter actually twofold. Judging the possibilities and necessity of relying either on the internal or the external market involved a basic decision of economic strategy whaich had to take into account the concrete conditions of the world economy.

Szita (Hungary), in his analysis of the relationship between Hungary and the developing countries, referred to the possibilities and points of mutual interest which may render the expansion of connections with the developing countries rational also for small countries. He emphasized that within the framework of a novel-type international division of labour emerging on the basis of world-wide extensive international cooperation, both the development of economic cooperation between socialist and developing countries and the rate of economic growth in the latter could be accelerated.

Kroske (GDR) was sceptical in his judgment of the possibilities of the mutual economic relations between the developing countries and would consider particularly dangerous the elements of neocolonialism which could be smuggled into this type of cooperation, an occurrence that could be prevented only by concerted action on the part of the countries with identical social systems and pursuing identical political aims. He took a stand on an extremely important point when declaring that, in the final analysis, the efficiency of economic cooperation was determined by the conditions of political development. *Inotai* (Hungary) expressed doubts that the identity of political system would have an explanatory role in the development of mutual relations, basing his arguments on the experiences of East-West trade and of the cooperation between the East African as well as the Central American countries. To give an example, he mentioned that within the Central American Common Market trade in manufactures increased 15-fold in the years 1960 to 1967, and that in the trade between Central American countries industrial products accounted for 75 per cent and in that between East African countries for 70 per cent of the total. In the paper submitted by the Centre for Afro-Asian Research of the Hungarian Academy of Sciences, analysing the economic progress made by the developing countries in 1968, it is also pointed out that the improved position and increasing growth rate of the countries developing their external trade relations more intensively does not seem to support

the views cautioning from the growing dangers and limitations of joining the international division of labour, and emphasizing the gravity of the market problem.

In the course of his analysis of the world political trends affecting the external trade relations, Prof. *Bognár* referred to the new phenomena related to the differentiation of international power relations which — as mentioned also by *Solodovnykov* and *Kollontai* (USSR) — did not make it expedient to apply uniform and rigid political schemes in approaching the problems of developing countries.

Several proposals were put forward concerning the economic role of the socialist countries in promoting economic development in the developing countries. *Rédei* would consider the extension of the system of long-term agreements, the granting of credits to facilitate the local processing of raw materials in developing countries and the establishment of joint enterprises the most essential elements of economic cooperation. He emphasized that present-day realism called for a policy of cooperation centred not on the establishment of a socialist economic order but on expanding the national — both government-controlled and private — sectors of the developing countries.

The investigation of the problems of plan implementation by *individual countries* has raised the exciting question, to what extent did the socio-political system prevailing in the various countries affect the trend of economic development. Thus *Yodkunas* (USSR) compared the development of non-capitalist Guinea and Mali with that of Senegal and the Ivory Coast. The latter — which may be considered as a characteristic type of the capitalist growth model and the most dynamically developing country in Black Africa — was chosen for subject also by *Uhlemann* (GDR) and *Onohov* (USSR). It testifies to the realistic approach characterizing the conference that the participants showed no reluctance either to disclose the problems and difficulties of the non-capitalist path of development or to analyse the motive forces of growth under capitalist conditions.

The picture that has emerged from the papers shows, for example, that in the case of Ivory Coast the dynamism of the economy has as yet not led to economic independence nor to an essential improvement in the situation of the masses. The participants of the conference came nevertheless to the conclusion that at present, when we are witnessing only the "first round" of economic development taking place within the framework of national independence, when the period under investigation still reaches into the present, the lack of an historical perspective makes any comparison of dynamism and vitality between the different socio-political systems premature. It is still the historically developed socio-economic structure that plays the decisive part in the successes and failures of the individual countries and it is

rather difficult to sort out the effects arising from the operation of the social system on the one hand and from backwardness on the other.

The papers analysing the situation of individual countries have yielded interesting information about the application of various systems of taxation, regulations of foreign trade, the problems relating to the control of private capital and the state-owned sector, the regulation of land ownership, etc. They reflect, at the same time, the fact that thinking in the categories of economic laws is gaining ground among research workers in socialist countries.

In conclusion, a few words about the intellectual atmosphere of the conference. There was consensus of opinion among the participants that the most important achievement of the Budapest conference was the unrestricted freedom of raising and discussing problems, the absence of schematic thinking, and a sober and realistic tone prevailing throughout the deliberations. Although in the present, rather complicated, situation several questions had to be left open, the frank exposition and discussion of the problems marked an important advance towards a novel-type scientific cooperation of the experts of CMEA countries.

L. MEIXNER

ACTIVITY OF THE ECONOMIC RESEARCH INSTITUTE

The main task of the Economic Research Institute is to study — covering the whole of the national economy — the general and special experiences, regularities of economic development, the factors affecting it, their interrelations and to prepare — on the basis of studying these factors — economic forecasts of probable development tendencies.

Though this summary definition of the Institute's activity indicates some typical features and particularities of the work there to a certain extent, it still seems expedient to cast some more light upon the most characteristic ones.

— Economic research, including the drawing up of forecasts has, as it is well-known, several partial fields: it can examine the position, the changes of certain branches, certain functions etc. in themselves and independently of each other. These partial fields, however, are organically linked to each other and a closed, comprehensive result can be reached only by the help of analyses relating to the totality of the economy. *The researches, forecasts prepared in the Economic Research Institute pertain to the comprehensive macroeconomic processes of the national economy.* (Thus, the examination of a certain branch of industry or an enterprise, or the estimation

of the expectable demand for certain products, for instance, do not belong to the scope of activity of the Institute.) And since macroeconomic thinking means thinking in terms of value, the work carried on in the Institute is limited to processes that are expressible in value terms and generally they do not cover natural processes. (The calculations performed take place, of course, in the details absolutely necessary for a sound foundation of the calculations, but not in a breakdown by enterprises or groups of products. The results are published only comprehensively, relating to the macroeconomic processes.)

— The Institute does not deal with theoretical, abstract basic researches but in the course of its activity it strives to utilize in practice the theoretical results of economics. It could be put in a way that the Institute is an economico-political and scientific establishment the main endeavour of which is to cultivate *applied economics*.

— On the basis of the researches, economic forecasts — since the relate to the whole of the economy — the right to take decisions is strictly reserved for the superior economic management. Therefore, the economic forecasts and (apart from a small number of exceptions) generally the other works of the Institutes as well *are meant for the superior economic and political leadership*, they give assistance to their work.

In connection with the *tasks* of the Institute the question can be raised above all: what is the justification, role of *economic forecasts* in a country carrying on a planned economy, based on the social ownership of the means of production. To answer this question it is necessary to mention, by way of introduction, some statements pertaining to the planning of the national economy and to the statistical work.

The plans of the national economy formulated after a consideration of the possibilities for development, the available resources, the possible and desirable structural transformations, determine with binding force the possible rate of economic development, the main proportions, the internal and external equilibrium, according to the possibilities. The approved plans are not free programs, nor forecasts, nor a summary of development alternatives, but contain the definite aims of economic action. In our country the plans of the national economy refer to medium-term — practically to five-year periods — while the short-range — annual — plans mean the plans of operative measures to be taken by the government. *In the centre of interest of the planning work stands — by the nature of things — the perspective of economic development in the farther future.*

Owing to the fundamentals of our socialist economic system a wide-range basis of data concerning economic development in the past is at our

disposal. All statistical and other information which make it possible to learn and analyse continuously the economic events, economic development, can be secured centrally, with binding force; practically there is no significant field of the economic and social life the regular data of which would not be at our disposal. It is first of all the detailed information basis — the bulk of which are the statistical data — which provides a sound footing for the elaboration of national economic plans. *In the centre of the statistical work, however, stands — by the nature of things — the recognition (and to a certain extent the estimation) of past processes.*

In any case there is obviously a time-vacuum, a "gap" between the statistics registering the passed events in a certain plan period and the plans setting the perspectives of a longer period. In a one-year plan period, for instance, statistics give a monthly account of the economic situation at a certain date it is also necessary to be able to give account of expectable economic development in the whole period of the plan and about the extent the realization of the targets included in the plan can be reckoned with.

This is a justified and reasonable expectation of the central economic management and it is so much the more justified as the changes taking place in the economy are not connected with calendar periods. (The situation can be similar during a five-year period: after some — two-three — years, starting from the development up to *that* time, the presumable development of the whole period must be examined.) Practically *one of the main tasks of the Economic Research Institute is* to bridge the gap between the "end point" of a certain plan period and the economic development actually taken place till a *given* date — that is *to elaborate short-range economic forecasts.*

It is not by chance that the government took practical measures for the establishment of the Economic Research Institute when the reform of the system of economic control and management took place. (The Institute was founded about half a year before the introduction of the reform at the beginning of 1968.) Namely, one of the essential features of the reform — but mentioned here only for the sake of illustration — is that the attainment of the targets set up in the plans is secured not by direct plan instructions given to the enterprises but by the help of various economic regulatory and incentive means having indirect effects. It was first of all this circumstance which made it necessary to introduce the elaboration of short-range economic forecasts. A management with economic means demands, namely, to follow with attention the expectable development of the economy under the effect of these regulators, whether these regulators drive — as far as can be foreseen — economic development into the desired channels or else economic management has to intervene regulatingly in the course of the economic life. (Earlier, when the notion of planning was identical with detailed, plan instructions given to each enterprise in a quarterly breakdown, an economic forecast had

not much room left, or the role of the forecast could be limited at most to showing what factors promoted or hindered plan fulfilment.

Accordingly, the task of the Economic Research Institute is to indicate, as early as possible, — on the ground of the experiences of the past, of the economic interrelations and in view of the actual circumstances, as well as the regulators prevailing at the moment of the economic forecast — what effects and development can be expected concerning the totality of the economy or some if its main fields first of all regarding a shorter period. (In connection with the forecasting activity of the Institute it is to be mentioned that its forecasting work is not identical with the forecasting activity of a western type, nor with any form of economic planning activity prevailing in the capitalist countries, nor — especially regarding its aim — with the forecasting work of different market-research institutes. As regards, however, the mathematical and other methods applied in the course of elaborating the forecasts, it would naturally make no sense to speak separately of capitalist and socialist methods, though it is obvious that in the countries with different social and economic systems partly different economic factors, relations and impulses must be examined, very often with the application of roughly identical methods.)

The elaboration of economic forecasts naturally does not completely exhaust the scope of activities of the Economic Research Institute.

A fundamental condition of the elaboration of reliable economic forecasts is a thorough knowledge of the past; consequently, the preparation of a forecast involves in itself further tasks. These tasks are naturally subordinated — to a certain extent — to the forecasting work, though this does not amount to saying that they play a subordinate role in the work of the Institute or that no separate studies would be prepared as autonomous research topics, independently of the forecasts.

As indicated, one of the indispensable conditions of elaborating reliable forecasts is a thorough *knowledge of economic development in the past over a longer period and of the recent past*, of the mutual effects, the interrelation of the factors effecting development, the economic regularities that can be deduced and generalized on the basis of the aforesaid. Therefore, the Institute continuously performs researches regarding the development of the national economy in the past. In their framework, the Institute prepared, for instance, a comprehensive analysis of the development taken place in the national economy after 1945, disclosing the factors effecting economic growth and the factors of demand and production influencing its rate, examining the structural transformation of the national economy, comparing our development with abundant international data etc. It is, however, not sufficient for the forecasts to know the laws, economic interrelations prevailing in a longer period but attention must be paid as well to what "has just happened" in the economy,

in other words, the events of the recent past must be analysed continuously, too.

Economic development is, namely, subject not only to generally and lastingly prevailing laws but, on the one hand, there are external (for instance, international) and internal (for instance, weather) factors acting only temporarily and, on the other hand, deliberate decisions may set just the aim to change the equilibrium situation or the trend of an earlier development.

In connection with the latter, we should like to call attention to the fact that — as already mentioned — in 1968 an economic reform took place in our country. The economic regulators, measures, coming into force in the course of the economic reform, could be elaborated mostly on the basis of considering the possible connections only and not on an experimental basis. Nor does their effect appear simultaneously, not even of those measures which were simultaneously introduced. The results of each regulator affect each other, the time of the reaction to them — depending on their character — is different. All these make it necessary to make regular research how the economy has reacted in reality to the economic regulators. In the final analysis, the Institute deals with a constant character with the continuous research of economic development in the recent past, within this, with the analysis of the effects and "character" of the economic regulators.

In the course of elaborating the economic forecasts the Economic Research Institute builds its calculations — naturally starting from the situation dominating at the time of the forecast — on the assumptions deriving from the measures, economic regulators prevailing at that time. Moreover, *the Institute deals with researches aiming at the estimation of the effects of possible future economic and political decisions on the course of economic development.* Consequently, the aim of these calculations is not to elaborate forecasts but to examine under what conditions (with what rate of development, structural changes etc.) and, with what related economic and political decisions can a more optimal economic growth and a more favourable equilibrium condition be reached in the nearer or farther future.

In the course of these calculations elaborated in several variants, the Institute works out comprehensive alternatives for instance, about the following: do the productive resources, the capacities make it possible or not, to increase certain components of final demand in a way which would deviate from the one expected by the forecast, and if so, to what extent or what alteration of the production structure would make it possible to increase final consumption, and what effect would all these produce on the balance of payments of the country, etc.

Methodological questions constitute an integral part of the tasks enumerated but sketchily and incompletely in the above. The matter in question is partly that the otherwise well-known theoretical, mathematical

and other methods generally applicable for forecasts had to be made suitable for practical utilization according to the domestic economic particularities. Here we think, for instance, of selecting indices showing economic development in a most characteristic way, the indices necessary for the elaboration of the forecasts; of the elaboration of the trends on the basis of long time series, applying the most adjustable type of function; of the extrapolation of trends or, for instance, of the regression analysis connected with the major components of the GDP and the national income.

But in this context it can also be mentioned, for instance, that on preparing the forecasts we also rely on the global results derived from gathering the opinions of enterprises (testing method), but first its feasibility, the practical conditions applicable in our circumstances had to be worked out. (The global data of the first investigation of opinions in the enterprises, an open publication, was issued in December, 1968 with the title: "Opinions of enterprises about the expected development of economic situation in 1969".) At the same time, however, not only a simple adaptation of the well-known methods to the domestic situation takes place in the Institute but an improvement of the methods as well. So, for instance, the Institute elaborated a comprehensive form of the input-output table suitable for the purpose of controlling the completeness of the forecasting calculations, the interrelations of the data, that is, the consistency of the prognosis. The construction of a macroeconomic mathematical model utilizable for analysing the effects of different possible decision variants mentioned above, is going on at present. In connection with the methodological questions, however, it must be again emphasized that pure methodological research is not (and cannot be) the aim of the Institute; it is always the practical application which stands in the centre of methodological work carried on in the Institute.

In the course of its work the Economic Research Institute is in close contact with various other controlling and functional organizations and relies on the information originating from them is provided above all. The natural basis of its work by the statistical data and in this way — as a "consumer" of statistical informations — it is in the closest connection with the Hungarian Central Statistical Office, the president of which supervises the work of the Institute as well. Besides, the Institute utilizes the existing materials, analyses of the banks, tax authorities and foreign trade organizations, market research institutes, controlling organs etc. A useful contribution to its informations are occasionally organized conferences with economic experts.

BOOK REVIEWS

Institut des Sciences Economiques. Académie des Sciences de Hongrie. *Etudes* — Sélection des travaux de l'Institut. Réd. par T. FÖLDI, Budapest, 1968, pp. 103.

Dans le volume impressionnant des ouvrages publiés en Hongrie en langues étrangères et consacrés à la science économique, la participation des publications en langue française a été jusqu'à maintenant sensiblement faible. La preuve en est que durant les trois dernières années l'Acta Oeconomica n'a publié que deux études en français. Des ouvrages plus volumineux n'ont pas été traduits en cette langue.

Pour remédier à cet inconvénient, l'Institut des Sciences Economiques de l'Académie des Sciences de Hongrie a édité en 1968, à titre d'essai, un recueil d'études en français. Ce cahier, portant le titre «Etudes», offre aux lecteurs de langue française quatre travaux, dont les trois premiers ont déjà vu le jour en anglais sur les colonnes de l'Acta Oeconomica.

Les quatre études en question ne se complètent pas mutuellement, pourtant chacune d'elles consacre une attention particulière, même si dans des mesures diverses, aux problèmes de la planification. Ces problèmes sont envisagés dans des milieux sociaux différents, notamment dans les pays socialistes, dans les pays capitalistes développés, et dans les pays en voie de développement.

L'étude de M. *István Friss*, académicien, directeur de l'Institut, est consacrée aux problèmes du *perfectionnement de la planification de l'économie nationale* (A. Oec. Vol. 2., N° 1.).

L'auteur soumet à une analyse approfondie les critères de la planification scientifique de l'économie nationale. Après avoir déterminé les devoirs et les compétences des organes planificateurs et des organes politiques, il souligne qu'il est nécessaire d'élaborer les plans toujours en plusieurs variantes, offrant ainsi des alternatives. La constitution d'une conception de planification synthétique se présente, à son avis, comme une nécessité fondamentale. L'auteur est d'autre part persuadé qu'il est nuisible de fonder le plan global sur les plans partiels des différents secteurs de production. Finalement, il indique les voies par lesquelles on arrive à surmonter les obstacles méthodologiques et autres, entravant le perfectionnement de la planification.

La seconde étude, signée par M. *László Csapó*, est consacrée aux *problèmes généraux de la réforme économique hongroise* (A. Oec. 1966, N° 3/4.).

L'auteur met en relief le fait que la réforme, ayant abandonné le système des directives, a donné la préférence au modèle du marché socialiste dirigé, dans lequel le marché n'est pas uniquement un complément de la planification centrale, mais aussi un moyen pour lui conférer plus d'efficacité. Il faut, comme par le passé, planifier et régler les agrégats macroéconomiques, déterminant l'expansion économique et influant sur les décisions des

unités micro-économiques, mais cette régulation doit avoir lieu à l'aide de moyens économiques tels que les prix, la monnaie, les stimulants, les cours de change, les droits de douane, etc., soient en conformité avec le milieu économique donné.

Dans la troisième étude M. *Ferenc Molnár* se penche sur *quelques problèmes théoriques de l'économie capitaliste contemporaine* (A. Oec. 1966, No 3/4.).

M. Molnár constate que le capitalisme contemporain est *un monopolisme d'Etat*, nécessitant la planification même au niveau national. D'après l'avis de M. Molnár, par suite des changements ayant affecté les bases matérielles du mouvement périodique de la vie économique, la reproduction n'est plus nécessairement cyclique dans le sens traditionnel du mot. Une autre conclusion importante de cette étude est que les changements survenus dans les pays capitalistes développés concernant la structure de l'emploi ont contribué à ce que les salariés non productifs sont devenus les alliés potentiels les plus importants de la classe ouvrière.

La quatrième étude a été publiée en langue étrangère pour la première fois dans le cahier, dont nous donnons par ces lignes le résumé. Il s'agit du travail de M. *György Cukor*, directeur adjoint de l'Institut, travail consacré aux *caractéristiques principales de la planification dans les pays en voie de développement.*

L'auteur souligne que l'introduction de la planification dans les pays en voie de développement était due au rôle primordial que l'Etat joue dans la vie économique de presque chacun de ces pays. Vu cependant que la planification n'a pas eu pour conséquence leur essor économique, il n'existe pas une relation univoque entre planification et expansion économique. Les plans s'avéraient inexacts surtout dans le domaine de l'agriculture. La cause en est que l'état arriéré de la vie économique rend l'activité planificatrice extrêmement difficile. Les statistiques font défaut, les trends du passé permettent à peine l'extrapolation, on dispose de peu de spécialistes de planification et, en général, de peu de dirigeants versés dans la réalisation des objectifs des plans.

Malgré ces déficiences, les essais de planification sont quand même utiles, d'une part parce qu'ils contribuent à donner une image réelle de la situation économique, d'autre part parce qu'ils facilitent la prise de corps de conceptions d'économie politique. Il y a une différence essentielle — souligne l'auteur — entre les plans des pays capitalistes développés et ceux des pays en voie de développement. Les premiers s'efforcent avant tout d'obtenir un équilibre à court terme et pour ce but ils mettent en œuvre des moyens monétaires considérables. Les seconds se fixent surtout des objectifs à long terme, prévoient des changements structuraux et s'appuient principalement sur des indices quantitatifs.

Le cahier, dont nous venons de donner le résumé et dont la présentation est sobre mais non exigeante, a trouvé partout un accueil favorable. C'est ce fait qui a donné l'impulsion à l'Institut de préparer la publication d'un nouveau recueil d'études en français, mettant à la portée des lecteurs de langue française les travaux récents de l'Institut des Sciences Economiques de l'Académie des Sciences de Hongrie.

A. T.

Mrs. Benedecki, J.: *A nemzeti jövedelem és tényezői.* (National income and its constituent factors.) Budapest, 1968. Közgazdasági és Jogi Könyvkiadó. pp. 350.

The economic situation of a country and the changes therein may be best characterized by the volume, pattern and trends of national income. Although the subject is one of key importance, a work to deal with it comprehensively has for a long time been missed in Hungarian economic literature. Mrs. Benedecki not only discusses the theoretical and practical problems of national income accounting and analysis but also helps the investiga-

tion of related subjects with references to numerous original (hitherto unpublished or hardly accessible) statistical sources and by introducing novel calculation methods.

The book consists of four parts and contains, in addition, an Appendix by T. Weitz on the analytical methods applied to time series. In the first part entitled *National income and its definition*, a stand is taken on the questions of the concept and accounting of national income, which are now widely discussed both in Hungary and abroad. The authoress correctly emphasizes the fact that differentiating between productive and unproductive labour constitutes the criterion of the unequivocal definability of national income.

Many arguments can be avoided if we do accept — as a general definition — the product of (new) productive labour performed in a time unit (year) as national income. In the case of commodity production, this product consists "... *as regards its form as use value*, of consumer goods and services created in that year and *as regards its value form*, of the new value created in that year that is, of the (primary) income deriving from production of people engaged in productive activity and of productive organizations" (p. 15). Marxian economics brings about a harmony between the objective and personal concepts of national income and between the objective and subjective methods of its accounting. "National income may be determined: from the aspect of material goods by means of prices . . .; and . . . as the sum of new value created by the organizations . . . , and as the sum total of primary incomes . . ." (p. 20). The most important condition is to interpret the concept of income-generating activity in a uniform way.

Within the scope of socially (economically) useful activities a line must be drawn even under socialism between productive and non-productive activity. "Material production . . . comprises those socially organized effects on the endowments and forces of nature which result in the satisfaction of human needs" (p. 26). The authoress stresses the point that purposeful human activity can be considered productive only if it answers all three requirements mentioned. It is on this basis that she arrives at the statement that ". . . transportation and communication may be conceived of in their entirety as effects exerted on nature" — namely, in their capacity of conquering space — "and in modern economies these are socially organized in order to meet human needs" (p. 31).

After analysing the various sectors of the economy and within them the individual branches of material production, the authoress deals in a novel manner with the possibilities and methods of calculating national income in the various phases of the reproduction process. Of particular interest is the part on the *determination of national income in the distribution phase*, since this approach is the least customary one in the economic practice of the socialist countries. An analysis of the distortive effects of the price system in the investigation of the pattern of national income and its spatial as well as temporal dynamics is carried out.

In the second part, entitled *Development of national income in Hungary*, it is the first time that data for 1920/21—1943/44 and 1949/66 have been made available at current prices. From the confrontation of time series of value indices with that of volume indices the authoress concludes: "In the last 18 years, the series of value indices of national income based on current prices has increased at a considerably quicker rate than that of volume indices. This means that smaller or greater price rises and shifts in relative prices have taken place in some factors of national income. In the following I will call this price movements inflationary . . . The extent of inflation appearing in the factors of national income can be characterized by the quotients of the value and volume indices of national income — which will

reflect not only the actual price changes but also the shifts in production pattern and in relative prices" (p. 120). From this comparison it appears that this "inflation quotient" was highest in 1960/1967 with 1949 as the base year). The greatest rise in this quotient between 1949 and 1966 occurred in the building industry where the average annual "rate of inflation" reached 5 per cent.

The presented data and the analysis of the trends in the utilization of national income by main items confirm the relationships which have been more or less known already. Personal consumption in this country amounts to some 70 per cent of national income. "As is known, on the basis of the production concept of national income this means only material consumption, and the trends in its volume do not necessarily coincide with those in total consumption. The difference between the two volume indices of consumption is the greater the higher the demand for "consumers' services".

The 1949-based index for 1966 of the volume of private material consumption was 258.6 whereas that of total consumption was 279.6 which testifies to a considerable rise in the demand for non-productive services. The average annual growth rate of private material consumption was 5.7 per cent which is lower than the growth rate of national income" (pp. 129—130).

Accumulation, that other major item of utilization shows relatively wide fluctuations, due mainly to the extremely great differences in the extent of changes in circulating assets. Nor can the growth of fixed assets be said to have been balanced.

In the second part, an analysis of the time series of national income from 1949 to 1966 takes an important place. To disclose the statistically definable laws of economic growth, the authoress investigates the various so-called "time" factors which come to expression in actual development. In establishing the trend lines of economic growth she starts from the theoretical consideration that the actual data of the time series reflect not only lasting tendencies but also other, random effects. The role of the methods that can be applied in this analysis as well as their limitations are clearly demonstrated.

The third part of the book (*Factors of national income and their investigation*) is introduced by showing the difference between the components (elements) of national income and the factors of its trends. The debates in literature on the subject are surveyed and the views of the authoress outlined. The analysis of interactions between the factors of trend on the one hand and national income on the other is served by elasticity investigations intended to show the percentage increase in some component (e.g. private consumption or the volume of fixed assets) in one year, brought about by one per cent increase in national income as the determinant factor. The elasticity indicators (functions) of national income may be used in certain types of analysis (e.g. in medium-term forecasts of consumption trends).

A detailed statistical-methodological foundation serves to analyse the interrelations known as direct and indirect factors of economic growth. Thus, separate chapters are devoted to the volume and efficiency (productivity) of labour and to the providing of the economy with means of production and their utilization. One of the main objectives of factor analysis is to show the effect of an increase in productivity (or in the degree of the utilization of assets) on the increment of output both on the sectoral and national levels. The extensive and intensive factors are defined by the authoress as increments achieved brought about, on the one hand, by a growing amount of labour or assets of a given efficiency, and, on the other hand, by improved efficiency (pp. 211 and 238—239). However, the changes in the sector pattern are also treated as extensive factors on the national level. Thus, the authoress writes: ". . . productivity per-

formance will not change as a result of changes in the structure of the labour force; but the social productive force, the national efficiency of labour will be modified. I would consider as an intensive or relative method of increasing output only the concrete changes in labour productivity — those in the economic sense .. ." (p. 238).

According to the authoress, "the effect of the assets becomes fundamentally manifest in intensive economic growth" (p. 247).

The fourth part (*Interrelations between national income accounting and other macroeconomic calculations*) deals with the relation between global social product and national income, the role of input-output analysis and the efforts at the extension of the system of national accounts.

One can fully agree with the concluding ideas of the author that ". . . the trend of the growth rate of national income fundamentally influences the development of the socialist ways of production and it is, therefore, desirable that future research work should be increasingly directed — not only and not even mainly, in the field of methodology but also in that of theoretical economics — to working out the Marxian concept of economic growth" (p. 330).

With its high-standard and manysided analysis of the subject, the work will be a useful handbook to a wide circle of readers.

L. Bors

A Magyar Tudományos Akadémia Ipargazdaságtani Kutatócsoportja. *Ipargazdaságtani Tájékoztató.* (Information Bulletin of Industrial Economics, released by the Research Group of Industrial Economics of the Hungarian Academy of Sciences.) Budapest. 1968—

The Research Group of Industrial Economics of the Hungarian Academy of Sciences started in March 1968 the series of its scientific publications under the modest title of Ipargazdaságtani Tájékoztató (Information Bulletin of Industrial Economics) and in a simple form. The relatively low circulation — 400—500 copies — indicates that the series is destined for a rather restricted circle of specialists and the interested public. In the course of one year, six volumes were edited and the seventh is under publication*. It is justified to deal here with the volumes covering various subjects of differing type and character not only because the series deserves to be known by a wide circle of economists but also because they are relating to some urgently topical problems of the Hungarian industry.

The titles of the individual volumes are the following: No. 1.: *A termelékenység színvonalát meghatározó tényezők* (Factors determining the level of productivity) March 1968. pp. 115. — This is a comprehensive report on the productivity comparisons carried out in the framework of CMEA and based on physical indicators.

No. 2. *A magyar ipar ágazati szerkezete* (Sector pattern of the Hungarian industry) May 1968. — A study prepared for the purposes of long-term planning.

No. 3. *A versenyképes vállalat* (The competitive enterprise) Sept. 1968. pp. 88. — Experiences gained in England.

No. 4. *Nemzetközi összehasonlítások az iparban* (International comparisons in industry) Sept. 1968. pp. 61. — Methods and sources.

No. 5. *A szervezés színvonalának értékelése* (Evaluation of the level of organization) Feb. 1969. pp. 113. — Soviet experiences.

No. 6. *A vállalati magatartás és a vállalat helyzetének megítélése* (Enterprise behaviour and evaluation of the position of the enterprise) May 1969. pp. 113. — Results of an inquiry.

The volume first published presents the summary of *productivity comparisons performed in the framework of CMEA with the aid of physical indicators.* The CMEA Productivity Working Group — the Hun-

* The seventh has also been published by now. (Editor.)

garian panel of which was headed by O. *Lukács* and later by Z. *Román*, Director of the Research Group — compared in 1964 the productivity level and its determining factors in 12 industries, based on 132 representative products, in international dimensions. In spite of the fact that only six socialist countries participated in the comparison (Bulgaria, Czechoslovakia, Poland, Hungary, the USSR and in respect of some products the GDR) and that the well-known difficulties of representation and of measuring productivity unavoidably lead to inaccuracies, the comprehensive evaluation provides food for thought and yields useful information. The latter must be an incentive to initiate further investigations.

The study published as the second volume of the series was prepared by the Research Group on commission by the National Planning Office for the purposes of long-term planning. The expected pattern of the Hungarian industry is analysed here on hand of international comparisons.

The third and the fifth volume are reports on experiences abroad. Both the initiative and its form can only be welcomed since they make recent foreign experiences available quickly and to a relatively wide circle.

The well-chosen title of the third volume: "The competitive enterprise" conceals many an interesting method applied by the British enterprises which are in keen competition with each other on the international markets. Also some institutions helping the enterprises to improve their competitive position are surveyed. All this is topical, and useful to us who are just becoming acquainted with the problems of the market economy. The volume contains several articles which provide points of view for raising the efficiency of management. E.g. one survey reviewed lists 59 apposite and witty questions the answers to which reflect the mentality of successful (dynamically managed) and failing (passively managed) firms. Another one was worked out by the National Economic Development Council in England as a collection of "points of view" for a better organization of labour in the firm. By answering the questions, a firm may check the efficiency of its own methods. A similar principle is applied in the collection of questions which helps the enterprise to raise the productivity of labour. The concept of productivity is broadly interpreted by those compiling the list, including in addition to production also management, work organization, technological design, etc. The volume also gives some British "recipes" for improved marketing. In this respect, the firm has to rely mainly on the experiences and smartness of its own employees. One section presents on hand of a concrete example the method of collecting and analysing good, constructive ideas, i.e. of "brainstorming". The firms with a below-average performance are aided in revealing the factors of the poor performance by a firm of efficiency experts which performs the inter-firm comparison of the most important profitability indicators. The "pyramid of indicators" published in the volume on p. 48 and the analysis performed with its aid clearly illustrates the procedure. It is conspicous how many various government and government-supported agencies contribute in particular ways to the more successful operation of the firms (e.g. by market organization, training, expert advice, etc.).

In a methodological publication of the series (Volume 4), *the methods of international productivity comparison* are surveyed. The methodology worked out by the CMEA Working Group for productivity comparison both in physical and value terms is reviewed and the lecture, rich in ideas, given by Z. Román in Vienna on the various methods of international industrial comparisons is also published, together with a comprehensive list of sources (broken down by products) for the use of industries, enterprises or other organizations wishing to compare their own situation with international data.

Volume 5 *(Evaluation of the level of organization)* reviews the most interesting methodological studies submitted to a conference on this subject held in the Soviet Union in March 1968. On the basis of three methodologies of a general character and employed in an engine factory and a mine, the system of indicators to measure the level of production organization is described. The method of the Ribinsk Engine Factory — now used in about five hundred enterprises — is most interesting. It starts from the fact that production is carried out on the basis of graphs (PERT) and normatives. The level attained in the scientific organization of work is characterized by 17 indicators and indicator groups and then an "aggregate" indicator is formed from their arithmetic mean to characterize global enterprise performance. The indicators are the following: coefficient to characterize the lagging of production behind the plan; rhythmical production; quality of production; machinery utilization coefficients; indicators of working hygiene and other conditions of work, work protection, etc. The other methods are based upon similar principles — mainly to measure the material inputs of production. With proper adaptation, many an element of the methods can be applied also in this country.

Volume 6 (Evaluation of enterprise behaviour and the situation of the enterprise), surveys the results of an inquiry held by the Group in September—October 1968 with the participation of external interviewers and covering about two hundred and fifty industrial managers.

It presents the views of the enterprises about the situation in 1968, their plans for 1969, the behaviour of enterprises and their managers under the conditions of the new mechanism, their intentions in the short and the long run, in the interest of developing the enterprise and raising its efficiency. It does not seem appropriate to condense the evaluation of this initiative, important from the theoretical point of view, into a short review. The interesting character of the subject and the fact that motivation research is as yet not sufficiently developed either in this country or internationally, suggests that the authors should submit their scientific findings to discussion.

In lack of an appropriate periodical on industrial economics, the Appendices to Vols. 5 and 6 provide information on the recent scientific news at home and abroad. Account is rendered on the 1968 activities of the Committee on Industrial Economics of the Hungarian Academy of Sciences, on the situation of research in the field of industrial economics and on some international conferences.

In addition to surveying the most recent foreign achievements the series of publications released by the Research Group testifies to remarkable research results at home. It can be only welcomed that the group drew attention in due time to the problems of competitiveness, as related to productivity. It is desirable that in the next research projects and analysis of value indicators and the effect of market conditions should be given greater emphasis. Let us hope that the initiative of the Group will find followers as regards the quick publication of scientific results, an extensive information service, rapid dissemination of domestic and foreign experiences, and thus development of scientific life and popularization of results.

I. GERGELY

KISS T.: *Nemzetközi munkamegosztás és Magyarország gazdasági fejlődése* (International Division of Labour and Hungary's Economic Development). Budapest, 1969. Kossuth Könyvkiadó. pp. 400.

Tibor Kiss presents a synthetic survey of the subject, based on fruitful research work of several decades. It was in acknowledgement of the dissertation on which the present book is based that the degree of D. Sci. Econ. was conferred on the author by the Hungarian Academy of

Sciences. In the framework of this short article an outline can only be given of the contents of the four-hundred-page volume which is extremely rich in ideas; the reviewer concentrates rather on drawing the attention to the work and on giving a comprehensive evaluation.

The scientific and technical revolution of our era — also called the second industrial revolution — has brought science into the range of the most important forces of production. However, we are inclined to interpret this thesis, which has by now already gained general acceptance, as referring only to the exact sciences, especially to physics and mathematics, with biology having been admitted to the range but belatedly and on the basis of a less general consensus. As a matter of fact, this "production force" character of science did exist already earlier in spite of its then supposed abstractness, for it was only applied scientific knowledge and the scientific exploration of the laws of nature that could provide a basis for the expansion of mechanical technologies. Nothing but already acquired knowledge had enabled the engineers and men of practice to invent the steam engine, the means of utilizing electric energy, the telephone. It is nevertheless justified to draw a line between present-day and earlier development and to emphasize the importance of science because in every branch of the economy there has emerged an organic and organized — not random or incidental — connection between scientific research on the one hand and practical application on the other, and, as a result, the achievements of basic research are today making themselves felt directly and rapidly in their field of application.

It appears, however, that the formula "science = production force" requires an extension. This applies first of all to the range of disciplines which are now becoming forces of production, a range that has come to include, beside the natural sciences, not only the social and political sciences as well as sociology and economics, but also the knowledge of historical development. There can be no doubt that the revolutionary break-through of science — this epoch-making development in the field of producing and utilizing material goods which took place in the past two or three decades — was enabled by the novel concepts in the social sciences, by socialist planning and the increased economic role of the state, by the exploration of human relationships and reactions having reached new depths. It would be an inadmissible simplification of the whole process to recognize exclusively its technical elements without taking into account the social environment in which it could and actually did unfold. The new objectives of economic growth, full employment, social redistribution, etc., although — due to the basic conditions and contradictions of the system — they could not consistently assert themselves in the capitalist society (and under socialism as yet not completely, because of historically determined, i.e. transitory and surmountable obstacles, such as economic and cultural backwardness) have both called for and provided a basis for the exploitation of the possibilities offered by science. What is, however, coming into prominence as a special feature of the whole process is the *international division of labour as the terrain of the scientific and technical revolution*, becoming in its trends and perspectives *one of the modern forces of production*. The international character of science has by now become an acknowledged fact, and it is primarily due to this universal and international character that science was able to grow into a force of production; its effects on the international division of labour are organically related to this latter fact.

Between the economic growth of a country and its role in the international division of labour, the forms, intensity and efficiency of its participation, there exist highly diversified and widespread but nonetheless intensive and direct relationships. The determinant force of these

relationships increases in inverse proportion with the size and in a direct one with the development level of the country concerned. But even in the case of great empires, international division of labour plays an important part in economic growth, although its effects may not always lend themselves to demonstration on hand of convincing data series. Belonging to the range of small countries and owing to her economic and cultural development level and production conditions, Hungary is undoubtedly eminently interested in the international division of labour. This fact in itself warrants and enhances the importance — both from the politico-practical and the theoretico-analytical points of view — of cultivating the science of the international division of labour, of treating its problems in literature.

The work of Tibor Kiss begins with an analysis of the relationship between the international division of labour on the one hand and economic growth on the other. He proves in a convincing manner that at present the degree of development of the international division of labour is at least as important a factor in raising productivity as had been the social division of labour in a narrower sphere at the time of the first industrial revolution. The author's investigations and results concerning the optimization of the capital requirements of external trade, the international course of research and development, and the growth in productivity induced by the international division of labour are of outstanding importance. It appears that these constitute the central idea of the work, its backbone as it were, from which the author has developed what may be welcomed as *the first concrete Hungarian document of foreign-trade planning based on scientific foundations and reflecting the spirit of the economic reform.* First, the course of development of Hungarian foreign trade planning is surveyed up to the present in an objective and critical manner, with both merits and shortcomings analysed; then, the author proceeds to examine the same problems on the CMEA level. There can be no doubt that in Hungary's economic growth it is the already existing and steadily growing integration within the framework of CMEA that constitutes the primary international factor in respect of both present and future development. This truth must be emphasized, although the importance and problems of the country's relations with the advanced and developing sectors of the world economy should not be overlooked either. It is thus highly justified that a major part of the work of Tibor Kiss should be devoted to CMEA. One cannot but agree when he points out that "*. . . the neglect of commodity relations, the restrictions put on the operation and active role of money and the market had particularly detrimental effects on the socialist international division of labour and on cooperation. They have put a brake in many respects on the development of a division of labour between the socialist countries, on the reasonable exploitation of economic resources, on the pooling of forces for the purpose of certain mutually advantageous joint ventures. This statement is the more fair as it does not alter the fact that both the individual countries and CMEA as a whole have achieved important results in the course of their economic development.*"

The author then proceeds to outline the ways of a reform for CMEA. Concrete proposals are made for new forms, or, more exactly, for a gradually expanding liberalization of trade in each other's products on the market of CMEA countries. Special emphasis is laid in this respect on the trade in industrial consumer goods, an extremely important field from the points of view of technological progress and the achieving of a more advantageous pattern of personal consumption which is still suffering from the pressure of several restrictive factors. Great importance is attributed in the work to direct links between enterprises in different CMEA countries in the form of technological

cooperation, the establishment of joint subsidiary companies, jointly owned and operated warehouses, etc., as well as to the reorganization of the credit and currency systems. "*Controlled competition between enterprises of the various countries in the markets of Hungary and the other CMEA countries is of great significance. By furthering economic integration and increasing the efficiency of foreign trade, this competition can greatly contribute to raising the level of living in CMEA countries.*" The role of prices in foreign trade and the possible forms of a reform of socialist world-market prices are dealt with in detail, and a proposal is put forward for setting up an international price equalization fund to counterbalance the disturbances which might accompany the price reform. We also approve of the proposals aimed at establishing a customs union of CMEA countries and agree with the author when he points out that "*. . . the new internal and international economic mechanism should leave room for socialist international market competition*". It is most regrettable that for lack of space, one is not in a position to quote all the author's ideas concerning progressive changes in the structure of world trade.

Most important and precisely formulated are the theses on state sovereignty and economic integration. Of primary interest is the following statement: "*The emergence and development of nation states constitutes a simultaneous dialectic process of expanding state sovereignty on the one hand and its voluntary self-restriction on the other.*" The emphasis is here, in our opinion, on the *economic concept of voluntary self-restriction*, which we would interpret as meaning a conscious participation in the international division of labour and an acceptance of the consequences arising therefrom. Self-restriction will, however, be possible only in the course of extending state sovereignty; economic integration presupposes a development level where the *material* contents of state sovereignty (sovereignty over "what" as against a sovereignty over "whom") had already considerably increased. Nor will it be possible to achieve complete integration, in the sense of self-restricted sovereignty, without taking into account and respecting the interests of the participating countries or without an integration of material resources brought about within the framework of sovereignty. However, free self-restriction must, in our view, be given certain social and institutional forms; it is only within a democratic framework, on the basis of democratically taken decisions that self-restriction can become a living, effective and accepted force. This is an element that Tibor Kiss has omitted to mention.

In conclusion, the author lays down some important principles regarding the participation of Hungary in the international division of labour. He would see the essential factor in increased export orientation, together with a reasonably applied policy of import substitution, emphasizing — most correctly — the requirements of profitability and up-to-dateness in export promotion, since the pushing of inefficient exports at any price will only brake economic progress.

The work of Tibor Kiss appears at a most propitious moment. His investigations provide a tool of high precision for those engaged in long-term economic planning and offer, at the same time, an orientation for the enterprises, besides outlining in a comprehensive form the course to be followed in socialist international integration.

I. VAJDA

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Printed in Hungary

A kiadásért felel az Akadémiai Kiadó igazgatója — Műszaki szerkesztő: Farkas Sándor
A kézirat nyomdába érkezett: 1969. VIII. 13. — Terjedelem: 10,50 (A/5) ív, 8 ábra

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VOL. XXXVI (4) MÉXICO, OCTUBRE-DICIEMBRE DE 1969 No. 144

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El XIII Periodo de Sesiones de la C. E. P. A. L.

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REVISTA DE REVISTAS – PUBLICACIONES RECIBIDAS

El Trimestre Económico aparece los meses de enero, abril, julio y octubre de cada año, la suscripción anual cuesta: En México $ 75.00, en el extranjero Dls. 7. 50. Números sueltos $ 25.00 y Dls. 2. 50. Lo edita:

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REVUE TIERS-MONDE

Tome X, N° 38 — Avril — juin 1969

EDUCATION ET DEVELOPPEMENT

*

Note de la rédaction: Ce numéro est, depuis la création de la Revue, en janvier 1960, le quatrième numéro entièrement consacré aux problèmes de l'éducation dans ses relations avec le développement économique et social. On étudiait plus spécialement: dans le tome I, n° 1—2, la planification de l'éducation; dans le tome V,° 17, l'interdépendance du développement de l'éducation et du développement économique et social; dans le tome VI, n° 22, on a essayé de préciser les aspects financiers d'un plan d'éducation. Ce tome X, n° 38 fait le bilan de quelques orientations de recherches actuellement en cours dans un groupe de l'I.E.D.E.S.; trois directions de travail peuvent être distinguées : quelques approches du rôle des ressources humaines dans le développement, des recherches plus spécifiques sur les coûts et les rendements de l'éducation, et des études sur les différents systèmes d'enseignement.

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Le Thanh Khoi:	Planification de l'éducation et de l'emploi dans le monde rural.
Guy J. Bretonnes:	L'enseignement agricole et l'éducation rurale dans la stratégie du développement.
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Jean Mouly:	Essai d'analyse de quelques problèmes et techniques de planification de la main-d'œuvre.
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BIBLIOGRAPHIE

Direction-Rédaction:	Institut d'Etude du Développement Economique et Social — 58 Boulevard Arago — PARIS XIII° — (tel.: 331—28—01)
Abonnements et vente:	Presses Universitaires de France — 12, rue Jean de Beauvais — PARIS V° — (tel: 033—48—03)
	France: 56 Francs — Etranger: 62 francs.

INTERNATIONAL SOCIAL SCIENCE JOURNAL

A quarterly review published by the
United Nations Educational, Scientific
and Cultural Organization,
Place de Fontenoy, Paris 7ème

Just issued: Vol. XX, N° 3 (1969)

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A Quarterly Review of the Hungarian Academy of Sciences

Papers are published in English or in Russian, German and French.

Editorial Office: Budapest 502, P.O.B. 24

The subscription rate is Ft 165.— per year. Orders may be placed with *Kultúra* Trading Co. for Books and Newspapers (Budapest 62, P.O.B, 149) or with its representatives abroad, listed on p. 4 of the cover.

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Публикуется ежеквартально.

Статьи публикуются на английском или на русском, немецком и фпанцузском языках.

Адрес редакции: Budapest 502, P.O.B. 24

Подписная цена — 165 фт за год. Заказы принимает предприятие по внешней торговле книгами и газетами «Kultúra» (Budapest 62, P.O.B. 149) или его заграничные агентства.

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Vierteljahresschrift der Ungarischen Akademie der Wissenschaften

Aufsätze erscheinen in englischer oder in russischer, deutscher und französischer Sprache.

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Jahresabonnementspreis: Ft. 165. —. Bestellbar durch *Kultúra* Außenhandelsunternehmen für Bücher und Zeitungen (Budapest 62, P.O.B. 149) oder bei den Vertretungen im Ausland.

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10. XII. 1969 **Index: 26.031**

ACTA OECONOMICA

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TOMUS 4
FASC. 4
1969

ACTA OECONOMICA

A MAGYAR TUDOMÁNYOS AKADÉMIA
IDEGEN NYELVŰ KÖZGAZDASÁGTUDOMÁNYI FOLYÓIRATA

Felelős szerkesztő:

FÖLDI TAMÁS

Szerkesztőség: Budapest V., Münnich Ferenc utca 7.

Megjelenik negyedévenként, évi 1 kötetben. Megrendelhető az Akadémiai Kiadónál (Bp. V., Alkotmány u. 21), a külföld részére pedig a Kultúra Könyv és Hírlap Külkereskedelmi Vállalatnál (Budapest I., Fő u. 32).

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Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (4), pp. 337—350 (1969)

E. LUNDBERG

STRUCTURAL CHANGE AND MARKET EFFICIENCY

The author deals with the problems of structural change and market efficiency with a special reference to Swedish experiences of government growth policy. After giving the definitions of main concepts used, to measure efficiency a model of structural change is treated. Conditions of an effective market system, the role of wage costs in efficient growth and relating government policy, furthermore possibilities for an improved government growth policy are analyzed.

Definitions

The title of my subject contains a number of questionmarks. In fact, every word of the title should be explained. Let me start with the concept "*structural change*". It has a number of dimensions and let me mention three of them.

1. The concept can be defined from the point of view of activities: as to branches in the economy (agriculture, industry, trade, etc.). We may study the structure within the branches (as to size distribution of firms and plants). Or we may look at shares of export, import, home market activities, at the distribution between government and private sector, at market and non-market activities within the economy, as well as at the geographical localization of activities.

2. Structure may be looked at from the point of view of output or results: private and public consumption, investment goods, export goods, education, etc.

3. As a third alternative we may consider the input of labour and capital, of technical knowledge and market research and the distribution of activities with regard to these various inputs.

The term *efficiency* refers to some relation between the inputs of resources and the results of these inputs. There is no objective measure. Various problems of aggregation and valuation must be solved. We may look at a formula such as:

$$\frac{Q}{A} \text{ or } \frac{Q}{\alpha \cdot A + \beta \cdot K + \cdots}$$

where Q refers to a measure of the volume of output; A to input of labour and K to input of capital, all in weighted volume terms. α and β are the weights.

This formula may refer to a branch or to the whole country and we may make comparisons between countries or work with time-series. One of the most difficult problems refers to the valuations involved both in the numerator and

in the denominator. This problem of valuation is especially difficult and important when we try to study effects of structural change and how these changes influence efficiency. Such structural changes must involve shifts in the weights of different inputs, outputs and in relative prices. The change in price relationships, that accompany structural transformation must involve unavoidable problems of valuation. These refer both to alternations in consumer preferences and to effects of technical development. A measure of the development of efficiency for a country must also pay attention to the problem of how broad and inclusive the measure should be. If we take GNP and total input of labour and gross capital, the corresponding concept of productivity might be, from the point of certain problems, too narrow. A rapid increase of this type of efficiency measure for a country might imply big negative external effects on nature and on working milieu (smoke, pollution of water, strains on human beings) as well as creating more unequal distribution of income and wealth. Such negative effects on human welfare (in some defined sense) cannot easily be measured but should be kept in mind when making comparisons between countries.

There are also problems involved in the word *Government policy*, in the title of my subject. One question is how the government is involved in changing the structure of an economy. What are the aims of the government and what measures are actually being used? It is not easy to give a clear picture of government policy in these respects. And furthermore, what are the causal relations between the governments' measures and effects on efficiency coming from structural change?

I hope that with these introductory words I have given you a feeling that I am aware of the fact that this type of analysis is sailing over deep waters. I shall concentrate the attention on some few aspects of the problems mentioned. And this I shall do mainly against the background of some Swedish experiences. I hope that these experiences are of some interest to you and can be compared with attitudes and results in Hungary.

A measure of efficiency

The Swedish economy seems to be rather efficient from the point of view of the narrow GNP measure. The per capita national income is at present close to 3000 per capita, being 1/3 below the level of the USA, but 30—40% above the corresponding figures for the UK and West Germany, and perhaps 3—5 times as high as in Eastern Europe. This is in accordance with the measurements of Simon Kuznets. This relatively high level of national income per capita implies that the total wage costs in Sweden are about correspondingly higher than in other parts of Europe. Comparisons with the continent of

Western Europe show that the Swedish wage costs per hour worked are about 30—40% higher. Also when looking at development over time one gets the impression of rapidly rising efficiency, with GNP per hour increasing by about 4% on annual average since the beginning of the 1950's. Industrial production per man-hour has been increasing by between 7 and 8 per cent during the 1960's.

We all know that this type of measure of efficiency is very inadequate. The increase of production per man-hour is partly an effect of capital substitution. Therefore, we try to measure *total* productivity with inputs of both labour and capital in the denominator. Very approximate calculations along these lines for industry in Sweden seem to point at a yearly rise of total productivity of 2—3 per cent. Rough calculations of this sort are, however, very hazardous, especially because of the well-known difficulties of defining and measuring volume and service-inputs of capital.

Anyhow, there are indications that efficiency in general within the Swedish economy has been high enough and rising fast enough to take care of the high and rapidly rising labour cost. Labour cost per man-hour, including all sorts of social contributions, have been increasing by 9—10% annually during the 1960's. One clear indicator of efficiency refers to the fact that Swedish foreign exchange payments have in the main been in equilibrium during the whole of this decade, yes, ever since 1947 when we had our only exchange crisis during the post-war period. Yet, foreign payments have been completely free and unregulated as regards trade and tourist traffic since the early 1950's. Only capital movements are under government control. We may take this steady equilibrium in the balance of payments as an indicator of the efficiency of the Swedish economy; the rapidly rising wage costs have not disturbed the balance of payments as an indicator of the efficiency; the rapidly rising wage costs have not disturbed the balance of payments, largely thanks to high and rising productivity within industry and trade.

A model of structural change

It is a fashion, or rather it has been a fashion, to explain the rising efficiency of an economy by means of production functions, especially of the Cobb-Douglas variety. However, this type of explanation mainly refers to inputs of labour and capital and leaves it to the residual to "explain" the shifts in the production function, mainly by referring to input of new technical knowledge. However, in such a type of explanation the whole problem of structural change is more or less completely left out. Here the focus of attention is on how the shifting of resources within the economy has effected efficiency. This effect might happen within a branch (referring to changing structure of

plants) but it may also refer to the shifting structure of branches within the whole economy. The concept of changing structure may even be made so wide as to include shifts of production and sales *within* a firm, e.g. from contracting to expanding products. When making the concept that wide, it is likely that close to 100 per cent of a country's productivity rise can be "explained" by structural shifts ! In the following figure I try to illustrate this type of problem. It is a kind of model of structural change.

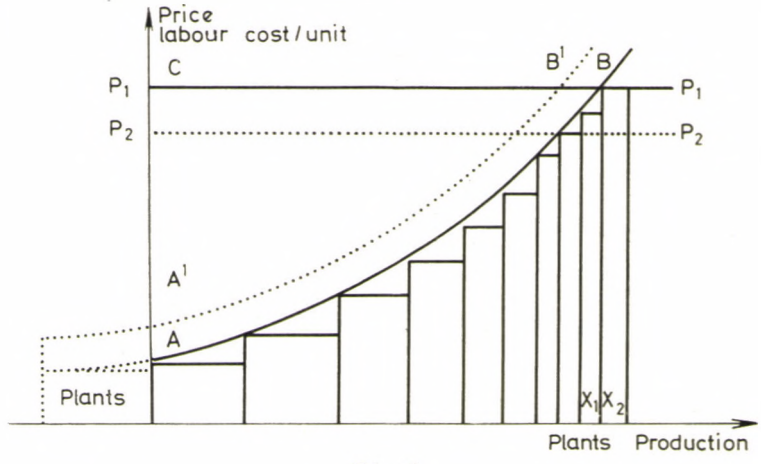


Fig. 1

The plants of an industrial branch are arranged with regard to rising labour costs per unit of output. The most efficient — and usually the new — plants are to the left of the figure and the least efficient plants with usually the oldest machinery are to the very right of the figure. It is a fact that the labour costs, as well as the output per unit of labour, are very different in the various plants within a branch. According to industrial statistics of some branches (paper, pulp and saw mills) the most efficient plants have labour costs that are only 1/3—1/4 of the marginal units in operation. And yet these most inefficient plants that are in operation are still useful and productive from the point of view of the whole economy. This is shown in the diagram by the fact that the price line P_1 cuts the cost line for the least efficient plant, implying that these least efficient units still can cover their direct costs. Observe that the price line in this diagram corresponds to value added per unit of output. Other costs referring to purchases of raw materials, fuel and half-finished products need not be considered here. The intra-marginal plants get gross-profits corresponding to the distance between the direct labour costs and the price line, so that the total profit of this branch of industry is equal to the big triangle ABC above the labour costs up to the price line. This means that our model of profit creation corresponds to the old Ricardian rent theory.

It is nothing very surprising about this type of presentation of the structure of an industrial branch. The diagram gives a realistic description of, for instance, the cost conditions within Swedish pulp, paper and saw-mill branches, that have been investigated along these lines. Such a presentation of the structure represents in a way a historical museum of the technical development. The oldest techniques in the oldest plants are mostly to the right of the diagram and the newest developments to the left. This also means that usually there is much more capital, especially modern machinery per unit of labour in the plants to the left than in the plants to the right. The gross profits of the intra-marginal plants and especially of the new plants to the left have to cover capital costs including the risks of investments in new technology.

Schumpeter's theory of development can be fruitfully interpreted along the lines of industrial structure. He wrote convincingly about the dynamic industrial process that he called *destructive creation*. In our picture creation happens to the left of the diagram. New investments in new techniques and new plants decrease labour costs per unit of output. This means that obsolete plants to the right are coming into difficulties because of competition from the new plants. The obsolete units are successively, being destructed by competition from the new plants, by means of lower prices (P_2, determined by the reduced average costs of the new plants) and because of the higher wage rates that the new plants under conditions of full employment are forced to pay (AB^1). Profits to the left have to be high enough in a private capitalist economy to cover capital costs and risks of new developments. But these relatively high profit margins are under continuous pressure of new developments and tend to be successively eliminated . In a number of years' time the firms to the left of the diagram may have been shifted over to the right hand part of the diagram, if they are not innovating their machinery and their plants sufficiently rapidly. But still the plants that have become marginal will be paying their way. The profit margin will be squeezed and even eliminated but as long as they cover the direct labour costs they can exist and defend their existence.

This account may be taken as an "ideal picture" of the dynamic development process in a capitalist economy. Schumpeter's idea that profits (and the interest rate) would reach zero in the equilibrium position is preserved as a tendency. But this tendency is continuously being interrupted by innovations in new techniques and new products. The strong dynamic force of competition is of course a strategic assumption for the efficient working of the model and this assumption has to be tested. There are certainly lots of monopoly and inertia factors in actual reality that disturb the process and mean a brake on efficiency. I shall return to this very pertinent problem of capitalist reality. Anyhow, according to the measurements made in Sweden for some branches of industry there was a lot of testable truth in our model: great differences in

labour costs between the various plants, the profits on capital were in average twice as high for the best techniques in the newest plants to the left of the diagram than the average for the branch as a whole, and a rapid, competitive transformation of the structure was going on.

This type of model of the structure in a branch and its changes over time can help us to explain how efficiency (or productivity) gains arise. In fact there are three types of such gains:

1. From investments in new plants and new techniques on larger scale on the left side of the diagram. That is what Schumpeter called "the creation part of development".

2. From destruction of the most inefficient plants to the right of the diagram. When these plants are eliminated under the force of competition, the average efficiency of the branch will increase. This elimination can occur either because the price line is pushed down, when new supplies are entering the market from the new efficient plants. Or at given, or relatively slowly rising prices, the increased labour costs that the more efficient firms can pay, will squeeze out the marginal firms to the right.

3. There will also occur internally, within the intra-marginal firms increased productivity under pressure from competition. When prices are stable or rising less than average costs per unit of output, the intra-marginal firms are under pressure to find ways of increasing productivity and reducing costs.

According to the empirical research in Sweden about 60% of the actual productivity gains during a ten-year period referred to structural change of the branch in question. That meant that the shifting of resources from the plants to the right with high labour costs per unit of product to plants with lower labour costs to the left, explained the major part of actual gain in production per man-hour. This type of structural shift within a branch can without doubt be generalized and refer both to shifts of resources within a firm between different products and markets, as well as to transformation between the various branches within a national economy. I would go so far as to say that a theory that tries to explain economic growth and productivity rise without referring to structural change implying shifts of resources from less to more efficient use would be a failure.

Conditions of an efficient market system

It is important to note, however, that a dynamic process of shifting resources to more efficient uses of productive resources only occurs under certain favourable conditions. In a western economy like Sweden it is a prob-

lem of how the market system functions, if it works in a reasonable efficient way. From this point of view we speak about the following conditions:

a) workable competition both in the goods and the labour markets,

b) high mobility of labour and capital,

c) strong enough pressure from uniform and rising wage costs.

Note that all these three conditions are closely related to government economic policy. I shall now deal with these conditions with reference to the Swedish experiences.

Sweden, as a part of the western international community, has a great advantage from being a small country. This means a large share foreign trade in relation to production for most branches of industry with prices on export and import goods *given* from abroad. Such a system works like perfect competition. The different branches of Swedish industry that are under heavy foreign competition cannot dictate their prices. A Swedish industrial corporation or branch of activity can in most cases have only a very minor effect on the world price level of its products. Being a small country also means that most of the large industrial corporations have to sell 50 per cent or more of their production on foreign markets. This explains an export-or-die-mentality. The big corporations cannot with good results search for protection within the usually much too small Swedish home market. Rising shares of the world market may be necessary conditions for progressive development. Compare this with the situation of the United Kingdom. Here it is usual for the corporations to have only 20—25 per cent of their sales on export markets. If difficulties arise on the export markets in a recession or because of competition from other countries, the British corporations are not forced to fight so hard as the corresponding Swedish ones, as there is a much bigger and well protected home market to which the British firm may retire. The Swedish market is in contrast nearly completely open with very little of tariff and other forms of protection. All this might mean — but is not proved by empirical evidence — that British branches of industry have longer "tails" of inefficient plants than corresponding branches in Sweden.

In the longer run an efficient market system should mean that productivity gains are more or less completely transferred to consumers and to employed. How complete this transfer is and, therefore, how small part of the efficiency gains that manifest themselves in increased profits depends upon how efficient the labour market as well as the market for the selling of goods works. W. E. G. SALTER, in his famous book "Productivity and technical change", has shown how those branches of industry in Great Britain that over the period 1924—1950 gave the highest productivity gains also had the largest relative price declines. The price declines meant a transfer of productivity gains to the consumers. At the same time, partly due to the price declines, the markets were widened and gave place for more of enlargement of plant and consequent

further productivity gains. On the other hand, branches with relatively low productivity gains had relatively rapidly rising prices.

This type of development with structural changes combined with corresponding shifts in relative prices unavoidably means difficulties of measurement. You have the Paasche-Laspeyres index problem. If we measure productivity gains by means of price relationships as given during the base period, then the rise of production and productivity will seem larger than if the basis of measurement refers to the end period. At the end period the products of the most expanded branches will have relatively low prices and will therefore get relatively low weights in the volume measurement. This type of arbitrariness in measuring results is unavoidable. Dynamic development and destructive creation must imply both volume *and* price relation changes (as well as new qualities and products).

Wage costs and Government policy

Looking at Sweden we find that profit margins have been squeezed rather generally during the 1960's as a result of the heavy competition on the world markets and on the Swedish home market from imports. The sector of the Swedish economy that works under heavy world market competition represents about 1/3 of the economy. At given world market prices that have been stable or declining in many cases and with an average rise of only 1—2% per year, the rapidly rising wage costs have for many branches implied a squeeze of profit margins. The firms have not been in the position to compensate themselves for the rising wage costs. And the rising wage costs have been determined indirectly by the government full employment policy. At a level of employment representing 1—2% unemployment it seems that total wage costs per hour will rise at about 9—10% per year. This represents the Swedish *Phillips curve*.

Another important condition for the efficient working of the market system refers to the fact that wage formation, as implemented by trade union activities, has implied a rather homogeneous level of wages. This trade union attitude is called solidaric wage policy. This policy should mean a minimum of concealed wage subsidy being an important condition for the efficient allocation of labour supply as between firms and branches of activity. If there are relatively small differentials between wage rates for the same type of labour in branches and firms that are very expansive and work under good productivity and profitability conditions and other branches of a more stagnant character, then there will be better conditions for efficient allocation of resources than if the weaker branches of activity had been indirectly subsidized by means of relatively low wage rates. Of course, the Swedish wage formation system is

far from perfect from this point of view. There are significant wage differences that do not refer to different kinds and qualities of work and mean imperfections. But I think it is true to say that, thanks to the solidaric wage policy of the trade unions, there is less of these imperfections than in most other countries. This means that there is correspondingly less of concealed wage subsidies causing sub-optimal allocation of labour.

An important aspect of Swedish structural policy of the government is based on increasing *the mobility of labour*. When branches with high productivity opportunities expand, the supply of labour should be recruited from branches and plants with stagnant demand or low productivity. A market-conform policy should respond to this shifting of opportunity by making labour sufficiently mobile in response to the market mechanism. In this way the gains from structural change should come more quickly than otherwise would be the case. Government labour market policy, therefore, means paying workers for moving from one job to another or from one region to another. It also means vocational training of labour on a scale that is large from an international point of comparison. About 1% of the labour force is at present more or less steadily under training for new jobs. That means that in a year about 2% of the labour force will have received vocational training within the schools of the labour market board. The trade unions have shown a very positive response to this type of labour market policy. They have accepted the fact that nobody can expect forever to be employed by the same plant and in the same place. Structural changes of the economy must mean that labour is dismissed from contracting branches and firms and they have to move over to the expanding sectors of the economy. The LO (central labour organization) has expressed the view that it is of greater importance for labour to be employed in efficient branches and firms than to be protected in existing jobs. The government full employment policy guarantees that there are opportunities, but it can never guarantee a man to keep the same job forever.

An efficient government policy supporting structural change must, of course, also rely on high mobility in the capital and credit markets. Innovating firms and corporations with big expansion programs should get hold of savings funds in order to be able to expand and they must have reasonable profit expectations — with profits high enough to create incentives and cover the investment risks. But there are certainly many imperfections within the Swedish credit and capital markets. The fact that corporations are to a large extent self-financing out of their own gross profits (with deductions for taxes and dividends) means a certain amount of compartmentalization of the market for savings funds. The savings out of profits are not without friction transferred from firms and sectors where there is relatively small demand to firms and branches with rapid growth. The banks do not and cannot operate in a "perfect" way because of customer relations and legislation. The monetary policy

of the central bank during boom times also means a lot of regulations of the credit market that work in the direction of reducing mobility of saving funds. However, the conditions may, in spite of these imperfections, be regarded as reasonably favourable for efficient allocation of savings funds within the private sector of the economy.

Another necessary condition of efficient functioning of a market system with regard to structural change refers to management. Initiative has to be taken by progressive firms, they have to take risks in a decentralized market system, invest in new techniques and find new markets at home and abroad for new products. It is a key to Sweden's relative success that there is enough of this type of private initiative. 95% of industry is still in private hands although we have a socialist (social-democratic) government since 1932. The government has been pragmatic and has let the private sector of the economy operate without much intervention as long as it is or seems to be efficient.

Criticism of the system and new needs for Government intervention

During recent years there has appeared rising criticism of the functioning of the market system and of the results of structural change. A new trend of Government interference with the market system can be noticed mainly because of the rising importance of other targets of economic development than efficiency.

These new targets refer to two main issues:

1. Income and wealth distribution.
2. Welfare and milieu considerations.

The welfare considerations in this connection refer to the sacrifices of all those employed who become the victims of the structural changes and the rapid efficiency drive. The process whereby people lose their jobs and will be re-schooled and shifted over to more productive occupations means benefits to the total economy in the form of additions to national product, but on the other hand these people have to carry the cost of this continuous transformation of the economy. The question is: are these sacrifices worth while? Anyhow, the costs and sacrifices connected with structural efficiency gains will rise with the speed of transformation. The opposition in Sweden comes from the feeling among a rising part of the population that the speed has been too high during the latest years (1966—68).

Let us first look at the problem of income and wealth distribution. Growth and increasing efficiency in a market system tend to generate inequality. There are cumulative processes and vicious circles arising out of success. Progressive firms in expanding sectors will in a free market system create higher income for

the employed and higher profits for the owners of capital. The savings from these higher profits will give possibilities for new developments, new initiative, new investment that create still more of new opportunities for further income growth as long as there are men of initiative and driving force. On the other hand, in contracting branches and firms with difficulties and low profits or losses, the contrary tendencies will work. It is a general observation that a free market system, when efficient, tends to operate in a way that creates widening gaps of income and wealth.

Income distribution, from an equality point of view, is not bad in Sweden in comparison with many other countries. The highest 10% of the income takers earn about 28% of total private income before taxes and the 2.5% highest income takers about 11%. The corresponding figures for countries like the USA, Germany, and Holland are much higher. The figures on income distribution for Sweden (e.g. looking at the concentration ratio) do not seem to point at significantly higher inequality than in some Eastern socialist countries.[1] And if we pay attention to the high progressive direct taxes in Sweden, the position from an equality point of view will seem still better (direct income taxes are higher and more progressive in Sweden than in all other countries). Also with regard to the share of total wages in GNP, Sweden is in the top of the tables of western countries and the share has had a clear tendency of rising during the 1960's. This is, of course, the other side of the story of the squeeze of profit margins.

An interesting aspect of the Swedish political debate is that the ambitions as to equality tend to rise with GNP per capita and also with degree of equality already attained. The aspiration level is all the time running ahead of the actual achievements. It seems as if there will never be an equilibrium position as to the distribution of income and wealth. In old times in Sweden, as is also the case in many developing countries today, the richest people would have incomes 10—20 times as high as the common worker. When in Sweden at present the differentiation between the salary of a top bank director (after tax) and the wage of a common worker is 5—6 times and the wage of a professor is 2.5 times that of a worker (again after taxes), these differences appear more unjustified today than the extreme differences in the old times. Then people lived in different worlds, contacts and knowledge were very limited. But nowadays, with all the statistical information, the closer contacts and the strong aspirations for a just society, the high wage differentials as exist in Sweden today will not be tolerated in the future. So the government is forced

[1] Such a statement must of course be covered by a great number of reservations. See the excellent survey by the Economic Commission for Europe: "Incomes in Postwar Europe", Geneva 1967. The statement refers to earnings. However, private income from capital (after tax) would not disturb the picture significantly. Dividends (after tax) amount to about 0.5 per cent of GNP. Wealth distribution, however, is quite another problem.

to do more, and much more, about income and wealth equalization, even if there followed negative effects on efficiency and growth.

To the inequality problem belongs also the question that the burden of structural change falls heavily upon a minority of people who become the victims of progress. As discussed above, a considerable proportion of the labour force has yearly to be shifted out of stagnation plants and branches of activity to find jobs in expanding firms and branches. There are rising reactions against this shifting of people out of inefficient plants usually into unemployment before they become vocationally trained for other activities and then moved perhaps to another region. We find the victims especially among older non-skilled workers, women and older people. The geographical problems of migration from the north of Sweden to the south is becoming a hard issue of debate.

There is no doubt about the efficiency in a narrow economic sense of the working of the market system in Sweden. The model of structural change presented above can be applied to show with some quantitative precision how the shifting of labour and capital out of relatively unproductive and stagnant branches to highly productive and expansive firms and sectors is of utmost importance for the growth of total productivity and national income. The policy conclusions for improving the right mobility of resources and creating the incentives and opportunities are also clear and rather generally accepted.

The doubts as to the benefits of government policies favouring structural transformation refer to the sacrifices of the individuals who lose their jobs, become unemployed during a transition period and have to move, as well as to the welfare losses of communities especially in the North of Sweden which lose their young people in a rapid tempo. The conclusion is that the government will have to intervene much more actively than before in order to control the process by means of a broad range of selective policies. In fact, the share of total Government in the Swedish economy is large from a Western point of view; total taxes and social fees amount to over 40 per cent of GNP and are rising rapidly, so that marginal taxes (referring to an increase in GNP) are above 50 per cent. The basis for Government interference with selective policies is the big State Pension Fund. A rising share of savings is channelled into this fund by means of fees paid by employers. In the 1970's the supply of savings from this pension fund will correspond to about one half of the regular credit and capital market.

Concluding remarks

The most important condition for the attainment of the high standard of living in Sweden that I referred to in the beginning of this lecture is of course the fact that Sweden has been "able" to keep out of two world wars.

The relatively undisturbed development of the Swedish economy, even during the wars has given the economy an early start in the post-war developments. When comparing the efficiency of the economies of various countries this factor must be kept in mind. It cannot be denied, however, that the market system, being effectively conditioned by foreign competition, has worked relatively well for important parts of the Swedish economy and that this is one of the factors determining the relatively high per capita national income.

In several respects the system has not worked perfectly, however. Lots of criticism have come out during recent years as to the deficiencies in performance. It is pointed out that Swedish industry has too many firms working on too small scale. There are too many cartels and there is much of power and wealth concentration, too little of effective democracy, too much of commercialism, profiteering, advertising, all this making many people unhappy, dissatisfied and restless. This type of criticism comes from the new left, but you will also find it in the liberal papers. It should be observed, however, that the criticism of the market performance of private industry and trade has to be compared with the opposite type of criticism of the other sectors of Swedish economy, especially the service (including Government services) and building sectors. Here the competitive powers are rather weak and productivity growth is far below the industrial sector. Therefore, the rise of wage costs in these sectors is transmitted into higher prices as an indicator of lack of both efficiency and competitiveness.

It is the growth of productivity in the sectors of the Swedish economy that are under heavy foreign competition that is remarkable, as pointed out above. But this type of efficiency that industrial corporations have been showing is also under heavy criticism. It is not an easy life in Sweden to be a capitalist or a top-manager. This type of a man is not a hero as he is in the USA or West Germany but rather suspected for being authoritarian and ruthless. All of this is of course part of his quality of being effective. The economic system, when it is efficient and ruthless, tends to generate its own criticizers. It is a phenomenon that apparently is also found in the eastern socialist countries. Here also the working of the system seems to create a certain amount of dissatisfaction and criticism.

In a country like Sweden there are strong countervailing powers appearing when certain tendencies are becoming too strong. A corporation that is successful cannot grow without limit. There will arise hard competition within the country and from abroad. It is therefore difficult for a company or a branch of industry to keep high profit margins for a long time. Also the important Swedish cooperative societies enter as strong competitors. Above all, the government sector is growing rapidly, in fact 50% more rapidly than total GNP. Government power and control over the private market sector is increas-

ing by means of a number of policy controls, not least with regard to the control of the savings supply. The big government pension fund has a great influence, and it will have rapidly growing impact on the formation of capital. The creation and growth of this fund is a type of indirect socialization; direct socialization is not much of an issue in practical politics in Sweden. Instead, we see a lot of cooperation between the government and private companies when projects are large and risky. In this way the Swedish economy is a very mixed economy. It is a great problem however, and it will become still bigger in the future, to keep the market system working efficiently when there is lot of government interference and cooperation between the State and private companies, and when at the same time the ambitions are very high, to attain more of equality and democracy in the economic system.

Perhaps we in Sweden may learn a lot from eastern socialist countries in these latter respects, that is to say, about equality and democracy in industry. On the other hand, you might learn something about structural efficiency in a market system of a country like Sweden. It is again the conception of convergence of the systems of the West and the East, how they seem to approach each other from the opposite sides. Or I would perhaps rather refer to the convergence tendency in our thinking of the targets of a good society and our theories of how an efficient economic system should work.

СТРУКТУРНЫЕ ИЗМЕНЕНИЯ И РЫНОЧНАЯ ЭФФЕКТИВНОСТЬ В СВЕТЕ ПРОВОДИМОЙ ШВЕДСКИМ ПРАВИТЕЛЬСТВОМ ПОЛИТИКИ РОСТА

Э. ЛУНДБЕРГ

Автор сначала дает определение важнейших понятий, связанных с темой статьи, а затем знакомит читателей со степенью эффективности шведской экономики, являющейся довольно высокой: общая производительность труда в шведской промышленности ежегодно растет на 2—3%. Затем автор на модели показывает структурные изменения, в результате которых происходит оттеснение на задний план или исключение промышленных отраслей с наименьшей эффективностью. Этому процессу, по мнению автора, благоприятствуют условия, в которых функционирует рыночная система Швеции. Условиями эффективной рыночной системы он считает следующие: а) эффективная конкуренция на рынке товаров и рабочей силы, б) подвижность капитала и рабочей силы, в) довольно сильное давление со стороны единых и растущих затрат заработной платы. Все эти условия, по мнению автора, обеспечиваются экономической политикой шведского правительства. Несмотря на это в последние годы эта экономическая политика не раз подвергалась критике, в частности, главным образом, потому, что имеются и более важные цели развития экономики, чем повышение ее эффективности, в частности, более равномерное распределение доходов и богатства, улучшение условий благосостояния и общественного окружения. Последнее приобретает особенное значение, главным образом, для экономического подъема рабочих слоев, становящихся жертвами структурных преобразований. Другие критики подчеркивают чрезмерную роль монополий. В то же время встречаются и критические мнения, указывающие на преимущества частного сектора, ссылаясь на низкую эффективность общественного сектора. Несомненно, что в шведской экономике необходимо больше равенства и демократии при сохранении достигнутой степени эффективности. В этом отношении может быть полезным опыт социалистических стран.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (4), pp. 351—377 (1969)

F. JÁNOSSY

WIDERSPRÜCHE IN DER UNGARISCHEN WIRTSCHAFTSSTRUKTUR – WIE SIND SIE ENTSTANDEN UND WIE KÖNNEN SIE ÜBERWUNDEN WERDEN

Auf Grund der Analyse der gegenwärtigen Wachstumsschwierigkeiten Ungarns wird gezeigt, dass diese einer eigentümlichen Wirtschaftsstruktur entspringen — die der Verfasser »quasi-entwickelt« nennt — und dass diese infolge einer langanhaltenden, forcierten, extensiven Industrialisierung entstanden ist. Die Überwindung dieses quasi-entwickelten Zustands erfordert eine wirtschaftspolitische Konzeption, die sich von der bisherigen grundsätzlich unterscheidet.

Ein Perspektivplan der Volkswirtschaft muss — um auf die zukünftige wirtschaftliche Entwicklung überhaupt einen positiven Einfluss zu haben — die Konkretisierung einer wirtschaftspolitischen Konzeption sein. In Ermanglung einer klaren Konzeption — gleich ob diese im Zeitpunkt der Perspektivplanung aus subjektiven oder objektiven Gründen fehlt — wird der Perspektivplan auf eine bessere oder schlechtere Extrapolation des vorangegangenen Entwicklungsprozesses degradiert und verliert hierdurch seine einzige Bestimmung, nämlich jene: bei der Entscheidung aktuell auftretender Wirtschaftsalternativen ein *Wegweiser* zu sein, und zwar ein solcher, der zeigt, in welcher Richtung man im Interesse der zukünftigen Entwicklung von den »Forderungen des Tages« abweichen soll. Fehlt die wirtschaftspolitische Konzeption, so ist die detaillierte Ausarbeitung eines Perspektivplanes auch im besten Fall bloss eine Selbsttäuschung.

Die gesuchte wirtschaftspolitische Konzeption muss einerseits *reell* sein, d. h. im Spielraum der objektiv gegebenen Möglichkeiten liegen. Andererseits muss sie einen *Weg weisen*, der — wenn auch nicht optimal — zumindest *vorteilhafter* ist als der Weg, der sich anhand der einander folgenden Jahres- oder Fünfjahrespläne — also bloss vom kurzfristigen Gesichtspunkt aus als ein planmässiger, vom langfristigen hingegen als ein *spontaner* — ergeben würde.

Die *beiden Forderungen* gegenüber der Konzeption, nämlich einerseits reell, also objektiv realisierbar, andererseits relativ günstig zu sein, ergeben *zwei* voneinander oft ungenügend unterschiedene *Aspekte* der Wirtschaftsanalyse.

Die *Umgrenzung des reellen Spielraumes* muss nämlich von der Analyse der konkret gegebenen Umstände, die Erforschung der *»relativ günstigen«, Richtung innerhalb des Spielraumes* hingegen von den allgemeinen Gesetzmässigkeiten der wirtschaftlichen Entwicklung ausgehen. Ja, es ist wohl möglich und sogar ratsam, von der üblichen Reihenfolge abzuweichen, d. h. mit dem Aufsuchen der »relativ günstigen« Richtung zu beginnen und diese erst nach-

träglich dermassen zu konkretisieren, dass sie innerhalb des objektiv gegebenen Spielraumes zu liegen kommt.

Es soll also hier der Versuch gemacht werden, von allgemeinen Gesetzmässigkeiten der wirtschaftlichen Entwicklung auszugehen und von diesen, durch eine schrittweise Konkretisierung, zu einer Konzeption zu gelangen, die dem Perspektivplan Ungarns für die folgenden ein-zwei Jahrzehnte zu Grunde gelegt werden kann.

Vorangehend wollen wir noch — um den Ausgangspunkt unseres Gedankenganges verständlich zu machen — folgendes bemerken:

Obwohl die heute gegebene Wirtschaftsstruktur Ungarns und die sich aus dieser ergebenden Wachstumsschwierigkeiten keineswegs unmittelbar aus der überspannten Industrialisierungspolitik der Rákosi-Zeit abgeleitet werden können, muss man von *dieser Periode* ausgehen, da die damals vor sich gegangene Strukturveränderung zu sich selbst reproduzierenden Widersprüchen geführt hat.

Dieser Ausgangspunkt ist meiner Ansicht nach auch deshalb notwendig, weil die Konzeption einer forcierten Industrialisierung — die im erhöhten ersten Fünfjahrplan am deutlichsten ausgesprochen und angestrebt wurde — bis heute durch keine *prinzipiell* andere Konzeption ersetzt wurde.

Die Konzeption einer forcierten Industrialisierung lebte fort wie eine schon zerrüttete, nur aus Gewohnheit aufrechterhaltene Liebe, die erst endgültig und unwiderruflich zerfällt, wenn eine neue Liebe an ihre Stelle tritt.

Obwohl man in der Wirtschaftspraxis mit der Realität rechnete, d. h. auf die weitere extensive Erweiterung der Industrie zwangsläufig verzichtete, erhielt sich die Überzeugung aufrecht, dass eine Beschleunigung unserer Entwicklung doch nur auf dem alten Wege der forcierten Industrialisierung erreicht werden könnte. Es erging uns, wie jemandem, der in einem Tal, in dem es einen bequemen, aber nur langsam ansteigenden Weg gibt, sich am Bergabhang, am Fusse einer Wand, durchschlägt, zwar nicht steiler ansteigend, aber immer in der Hoffnung, einen steiler hinaufführenden Weg zu finden. Die Erklärung dessen, weshalb der gesuchte *steilere Weg*, d. h. eine Fortsetzung der begonnenen forcierten Industrialisierung, *nicht gefunden* wurde — und sich meiner Ansicht nach auch in der Zukunft nicht eröffnen wird — soll also den *Ausgangspunkt* zum Auffinden eines gangbaren Weges bilden.

I. Vorbedingungen und Schranken einer forcierten Industrialisierung

1. Der zusätzliche Freiheitsgrad einer Planwirtschaft

Gehen wir von einer Gegenüberstellung der Plan- und Marktwirtschaft aus, und zwar so, dass wir vorerst sogar von deren konkreten Formen abstrahieren und nur die beiden extremen Pole vergleichen, also ein völliges »laisser faire« mit einer bis in alle Wirtschaftssphären durchgreifenden Planung.

In einer »reinen« Marktwirtschaft wirkt das Wertgesetz so, dass es — wie Marx sich ausdrückt — »nur bei Strafe des Untergangs« übertreten werden kann. Dieser *Zwang zur Rentabilität* jedes einzelnen Unternehmens wird in einer Planwirtschaft (insoweit diese die Wirkung des Marktes völlig ausschaltet) aufgehoben. Inwieweit dieses »Aufheben« zum Vorteil oder Nachteil der wirtschaftlichen Entwicklung wird, hängt von der richtigen oder falschen Ausnützung dieses Freiheitsgrades ab. Dieser birgt also auch eine Gefahr in sich, nämlich die, auf einen falschen Weg zu geraten. Und doch darf nicht verkannt werden, dass dieser Freiheitsgrad eine Erweiterung der Möglichkeiten, also an und für sich einen *potentiellen Vorteil* darstellt.

Dieser zusätzliche Freiheitsgrad ist ähnlich dem, den ein Autobus im Vergleich zu einer Strassenbahn hat: beim Autobus besteht nämlich die Möglichkeit, die Fahrtrichtung unabhängig von den Schienen zu wählen. Ob diese zusätzliche Möglichkeit vorteilhaft genützt wird, hängt allerdings davon ab, ob der gewählte Weg günstiger oder ungünstiger, als der bei der Strassenbahn durch die Schienen erzwungene ist. Durch die Vergesellschaftung der Produktionsmittel haben wir uns von den Schienen, in denen die Marktwirtschaft läuft, befreit; man darf sich aber nicht einbilden, dass das Fehlen der Schienen die Fahrtrichtung bestimmt.

Meiner Meinung nach ist nun innerhalb dieses durch die Planwirtschaft gewonnenen Freiheitsgrades die *wesentlichste* — jedoch *nur unter bestimmten Umständen* positiv verwertbare — Möglichkeit, das *beschleunigte* Vorantreiben der Strukturveränderung der Wirtschaft, nämlich der beschleunigte Übergang von einer Struktur, die einem niederen, zu solch einer, die einem höheren Entwicklungsstand entspricht. Eine solche Strukturveränderung der Wirtchaft kommt (in einem industriell noch nicht hoch entwickelten Land) vor allem in einer forcierten Industrialisierung zum Ausdruck.

2. *Das wesentlichste Merkmal der forcierten Industrialisierung*

Bevor wir unseren Gedankengang weiter verfolgen, muss — um Missverständnisse zu verhüten — kurz festgelegt werden, was wir mit dem Ausdruck »forcierte Industrialisierung« bezeichnen wollen, wodurch sich eine *forcierte* Industrialisierung von einer Industrialisierung *im allgemeinen* unterscheidet und welche Kriterien die Forcierung charakterisieren.

Die Industrialisierung eines Landes erfordert *in jedem* Fall den Zustrom von Arbeitskräften — vor allem aus der Landwirtschaft — in die Industrie. Insoweit dieser Zustrom von Arbeitskräften das *Mass* nicht überschreitet, bis zu welchem er »normal verdaut« werden kann, ohne die Meisterung der neu errichteten Betriebe, die Qualität der erzeugten Produkte usw., also die Rentabilität der Industrie zu gefährden, handelt es sich um eine *normale*, also nicht forcierte Industrialisierung. Im Falle einer forcierten Industriali-

sierung hingegen wird das Tempo der extensiven Erweiterung der Industrie bis über dieses Mass hinaus getrieben und hierdurch wächst die Spannung zwischen der Arbeitsplatzstruktur und der Berufsstruktur derart, dass die neuerrichteten oder erweiterten Betriebe vorübergehend unwirtschaftlich produzieren. Bei einer forcierten Industrialisierung muss also das hohe Tempo der erzwungenen Berufsstrukturveränderung mit der vorübergehenden *Unrentabilität* der Produktion erkauft werden.[1]

Der Weg von dem niedrigeren zum höheren Entwicklungsniveau führt also im Falle einer *forcierten* Industrialisierung (vom Gesichtspunkt der Arbeitsproduktivität) nicht ununterbrochen aufwärts, sondern anfangs — in Folge der noch nicht gemeisterten neuen Technik — abwärts, sozusagen durch eine Talsohle, aus der der erneute steile Anstieg (also das erstrebte Resultat der Forcierung) erst mit der Meisterung der extensiv erweiterten Industrie einsetzt. (Weshalb dieses vorübergehende Absinken der Arbeitsproduktivität statistisch nicht erfasst wird, müsste noch eingehender analysiert werden: doch würde uns diese Frage hier allzu weit vom Thema wegführen.)

3. Plan- und Marktwirtschaft vom Standpunkt der forcierten Industrialisierung

Es ist auf der Hand liegend, dass eine reine Marktwirtschaft — also eine uneingeschränkt zur Geltung gelangende Rentabilitätsforderung — die Möglichkeit einer forcierten Industrialisierung prinzipiell ausschliesst. Für einen kapitalistischen Unternehmer ist dieser Weg nicht gangbar. Er kann sich auf keine »unrentable Investition« einlassen, auch dann nicht, wenn diese letzten Endes den Fortschritt beschleunigen würde. Dieser Weg bleibt für ihn »bei Strafe des Untergangs« verschlossen, denn die Konkurrenz zwingt ihn, auf einem ununterbrochen aufwärtsführenden Weg zu bleiben; er kann keinen solchen betreten, der — wie ihn die forcierte Industrialisierung fordert — vorübergehend abwärts führt.

Die Planwirtschaft hebt diese Rentabilitätsschranke auf, sie gestattet, den Weg der forcierten Industrialisierung zu betreten. Dass dieser Weg betreten werden *kann*, bedeutet jedoch bei weitem nicht, dass er unter allen Umständen zum erwarteten Erfolg führt.

Hiermit kommen wir abermals zur Frage des zusätzlichen Freiheitsgrades zurück, jedoch jetzt konkreter, nämlich vom Gesichtspunkt der forcierten Industrialisierung. Die Planwirtschaft gibt den Vorteil, auch solche Wege der Entwicklung wählen zu können, die für eine reine Marktwirtschaft nicht in Frage kommen, also auch den der forcierten Industrialisierung. Dieser Vorteil birgt jedoch die Gefahr in sich: auch dann diesen Weg wählen zu können,

[1] Siehe: Franz Jánossy, Das Ende der Wirtschaftswunder 1969. Verlag Neue Kritik Frankfurt a/M den Punkt »Fortschritt und unrentable Investition«.

wenn dieser infolge bestimmter konkreter Umstände *nicht* zum erhofften Resultat führt, sondern sich später als Sackgasse erweist.

Es muss also im weiteren geprüft werden, unter *welchen* Umständen der Weg der forcierten Industrialisierung *erfolgreich* gangbar ist.

4. Die allgemeinen Vorbedingungen einer erfolgreichen forcierten Industrialisierung

Ausser dem Aufheben der Rentabilitätsschranke ist eine forcierte Industrialisierung, um *erfolgreich* zu sein, an folgende Bedingung geknüpft.

Die forcierte Industrialisierung eines beliebigen Landes erfordert — ganz allgemein genommen — irgendeine ausserhalb der Industrie liegende »ökonomische Quelle«, die das »Lehrgeld« begleicht, das sich infolge des forcierten Tempos der extensiven Erweiterung der Industrie ergibt. Diese ökonomische Quelle muss nicht nur genügend »ergiebig« sein — um über die Jahre, die denen einer ursprünglichen Akkumulation ähneln, hinwegzuhelfen —, sondern auch »exportfähige« Werte liefern, da eine forcierte Industrialisierung nur mit Hilfe der Einfuhr moderner Technik aus einem wirtschaftlich höher entwickelten Land erfolgreich gewährleistet werden kann.

Es sei noch betont, dass sich die Notwendigkeit einer solchen ausserhalb der Industrie liegenden »Wertquelle« *nur* bei einer forcierten Industrialisierung ergibt, da das zu kompensierende »Lehrgeld« nur im Falle der Forcierung beträchtliches Ausmass annimmt und nur im Falle der Forcierung nicht von der Industrie selbst beglichen werden kann. Die Exportfähigkeit einer ausserhalb der Industrie liegenden Wertquelle ist insbesonders für ein rohstoffarmes Land ausschlaggebend, da die forcierte Industrialisierung das Verhältnis von *Importbedarf* und *Exportfähigkeit* der Industrie verschlechtert, und zwar aus folgenden Gründen:

a) Der Rohstoff-, Energie- und Maschinenverbrauch, also der Importbedarf eines Betriebes, in dem die Produktion von der Belegschaft noch nicht gemeistert wurde, ist in den meisten Fällen höher als der eines mustergültig arbeitenden (so steckt z. B. im Ausschuss nicht weniger Rohmaterial als in einer Qualitätsware; die Maschinen werden durch unsachgemässe Bedienung schneller verschlissen usw.).

b) Die *vor* der völligen Meisterung der Produktion hergestellten Erzeugnisse sind weniger dauerhaft. Hierdurch steigt der Importanteil in der Konsumtion. (Schuhe, deren Sohlen sich bald ablösen, enthalten nicht weniger Rohstoff als solche, die jahrelang getragen werden können.)

c) Die Exportfähigkeit von Industriezweigen, die noch nicht völlig gemeistert wurden, ist minimal, da die Qualität der Erzeugnisse den Ansprüchen des Exports entweder überhaupt nicht entspricht, oder nur bei allzu niedrigen Preisen exportiert werden kann.

Die forcierte Strukturveränderung vergrössert also — im Vergleich zu einer nicht-forcierten Entwicklung — die *Spanne* zwischen Importbedarf und Exportfähigkeit.

Hieraus ergibt sich die eingangs schon erwähnte, für den Erfolg einer forcierten Industrialisierung unerlässliche Vorbedingung, nämlich eine ausserhalb der Industrie liegende »Wertquelle«.

5. *Ein Vergleich der Vorbedingungen der forcierten Industrialisierung in der Sowjetunion mit denen in Ungarn*

In der Sowjetunion waren die grundlegenden Voraussetzungen für eine forcierte Industrialisierung im wesentlichen gegeben und können kurz in den folgenden Punkten zusammengefasst werden.

a) Die Bevölkerung war nach dem Krieg und Bürgerkrieg ungeheuer bedürfnislos und opferfähig.

b) Die Landwirtschaft konnte, auch nach dem sie bedeutende Arbeitskraftreserven an die Industrie abgegeben hatte, die Bevölkerung mit Lebensmitteln (wenn auch vorübergehend bloss auf einem sinkenden Niveau) versorgen.

c) Die Naturschätze des Landes waren ausreichend, um die Industrie mit Rohstoffen und Energie zu versehen.

d) Infolge des Reichtums an Naturschätzen konnte auch der Import von Maschinen und Ausrüstungen durch die Ausfuhr von Rohstoffen gedeckt werden.

Diese vier Umstände ermöglichten in der Sowjetunion — trotz vorübergehender Störungen —, das wirtschaftliche Gleichgewicht auf lange Sicht aufrecht zu erhalten; und zwar sogar bei einem derartigen Grad der Forcierung, bei dem die Industrie über Jahre hinaus vor allem sich selbst (und nur im geringen Masse die Bevölkerung) versorgte. Die Industrie, das Energiewesen, der Bergbau und der Transport bildeten jahrelang einen fast geschlossenen Kreis sich gegenseitig versorgender Betriebe, die zwar die Rüstung der Sowjetunion gewährleisteten, jedoch der Bevölkerung und der Landwirtschaft nur das Allernötigste lieferten.

Der Reichtum der Sowjetunion an Naturschätzen gewährleistete also nicht nur die Versorgung der Industrie mit einheimischen Rohstoffen, sondern darüber hinaus noch Rohstoffexporte, die es ermöglichten, die neugeschaffene Industrie zu überwiegendem Teil mit Maschinen aus dem Westen auszurüsten. (Hierzu muss man noch den Ankauf von Lizenzen und die Beschäftigung einer bedeutenden Anzahl von Fachleuten aus dem Westen rechnen.)

Vergleicht man die Voraussetzungen für eine forcierte Industrialisierung in Ungarn mit denen in der Sowjetunion gemäss der obigen vier Punkte, so erhält man folgendes Bild:

ad *a)* Das Lebensniveau der Bevölkerung in Ungarn war vor dem zweiten Weltkrieg höher als das in der Sowjetunion vor dem ersten Weltkrieg. Die Ansprüche der Bevölkerung waren also höher und wuchsen viel schneller. Diese sollten befriedigt werden, insbesondere weil die Bevölkerung Ungarns seine Rechte nicht selbst in einer Revolution erkämpft hatte, also für das System erst durch ein steigendes Lebensniveau hätte gewonnen werden müssen.

ad *b)* Die Landwirtschaft konnte die Bevölkerung mit Lebensmitteln versehen; in dieser Beziehung waren die Bedingungen in Ungarn ähnlich denen in der Sowjetunion.

ad *c)* Die Naturschätze Ungarns reichten nicht, um die Industrie mit Rohstoffen zu versehen. Mit der Erweiterung der Industrie wuchs in andauernd steigendem Masse die Einfuhr von Rohstoffen.

ad *d)* Der Import der modernen Technik konnte zwar bis zu einem gewissen Grade mit der Ausfuhr von landwirtschaftlichen Produkten gedeckt werden, jedoch nur in sinkendem und nicht ausreichendem Masse.

Kurz gesagt: Die Sowjetunion war *nur* zur Errichtung der neuen Betriebe auf Importe angewiesen, und konnte diese Importe mit Rohstoffexporten decken. Demgegenüber erforderte in Ungarn die *Produktion selbst* einen andauernden Strom von Rohstoffen aus dem Ausland.

Wie wir sehen, fehlte also in Ungarn die ausserhalb der Industrie liegende, den Erfolg einer forcierten Industrialisierung *ermöglichende* »Wertquelle«. Hieraus folgt zwangsweise, dass unsere *Industrie* ihren Importbedarf an Rohstoffen und Maschinen durch den Export von Industriewaren (zumindest zum grössten Teil) *selbst* decken musste. Dieser Umstand ergibt für Ungarn eine *spezifische Schranke* des Tempos der forcierten Industrialisierung. Das Tempo darf nämlich die *Grenze* nicht überschreiten, über der der Zustrom von neuen, unerfahrenen Arbeitskräften in die Industrie derart anwächst, dass die Qualität der Industriewaren nicht mehr auf dem für den Export unerlässlichen Niveau gehalten werden kann.

6. Zu Beginn der forcierten Industrialisierung in Ungarn

In der Rákosi-Zeit war das Vorbild für eine forcierte, extensive Erweiterung der Industrie zweifelsohne die Sowjetunion, der man zu folgen suchte, ohne die wesentlichen Unterschiede der Vorbedingungen wahrzunehmen oder zu beachten. Mit dem ersten Fünfjahrplan wurde der Weg der forcierten Industrialisierung betreten.

Vom Standpunkt des hier analisierten Problems ist es übrigens belanglos, ob diese forcierte Strukturveränderung

— bewusst und konsequent, mit dem Ziel, die Veränderung der Berufsstruktur zu beschleunigen, durchgeführt wurde,

— ob sie sich spontan aus dem Wegfallen der Rentabilitätsforderung ergab,

— ob das Embargo des Westens zwingend wirkte,

— oder ob für das Beschreiten dieses Weges bloss das Vorbild der Sowjetunion ausschlaggebend war,

— ob sie wegen einer tatsächlichen oder nur gewähnten Kriegsgefahr begründet schien,

— oder ob bloss die Fortsetzung des Tempos der Rekonstruktionsperiode angestrebt wurde,

wesentlich ist für uns hier *nur* die rasch vor sich gegangene Strukturveränderung der Wirtschaft, die forcierte Industrialisierung *als Tatsache.*

Dass die forcierte Industrialisierung trotz der ungünstigen Bedingungen nicht sofort an unüberwindbare Schranken stiess (dass der Aussenhandel über einige Jahre kein unüberbrückbares Hindernis ergab), ist wohl folgenden — eingangs besonders wirksamen — »lindernden« Umständen zuzuschreiben:

a) Das Gleichgewicht konnte zu Beginn der forcierten Industrialisierung durch die Ausfuhr von Agrarprodukten gesichert werden.

b) Nach dem Weltkrieg war die Nachfrage nach Industrieprodukten — vor allem in der Sowjetunion, aber auch im Westen — so bedeutend, dass auch für *minderwertige* Industrieprodukte Absatzmärkte gefunden werden konnten.

c) Die Sowjetunion war imstande für die in *a)* und *b)* angeführten Güter den Rohstoffbedarf Ungarns zu decken.

Besonders wesentlich war der letzgenannte Umstand, nämlich dass die Sowjetunion in den Nachkriegsjahren ein unersättlicher Abnehmer für Fertigwaren war und für diese die nötigen Rohstoffe lieferte. Wäre Ungarn Anfang der 50er Jahre allein auf den Aussenhandel mit dem Westen angewiesen gewesen, hätte die forcierte Industrialisierung in kürzester Zeit zu einer Wirtschaftskatastrophe geführt.

Die ernüchternde Katastrophe blieb zwar — dank den oben angeführten Umständen — aus, doch der latent gegebene Widerspruch blieb nicht nur bestehen, sondern zeigte ein eigentümliches Gesetz seiner *Selbstreproduktion.*

7. Mit dem Steigen des Entwicklungsstandes vermindert sich der Spielraum für eine forcierte Industrialisierung

Fast jedes Land — sei es noch so klein — ist auf einer sehr niedrigen wirtschaftlichen Entwicklungsstufe selbstversorgend; jedenfalls bedarf die *einfache* Reproduktion keinerlei Verbindung zur Aussenwelt. So war Ungarn im grossen und ganzen auf einer sehr niedrigen Entwicklungsstufe — zumindest war die Möglichkeit hierfür prinzipiell gegeben — selbstversorgend.

Ackerbau und Viehzucht gaben genügend Nahrung; Lehm oder Ziegel für Hütten, Stroh um diese zu decken, Hanf für Bekleidung, Holz als Baumaterial und als Brennstoff, Tiere als Zugvieh usw. waren alle im Lande in genügender Menge vorhanden. Erst mit der industriellen Entwicklung hört dieser idyllische selbstversorgende Zustand auf.

Infolge der Knappheit oder sogar des völligen Fehlens einzelner industrieller Rohstoffe enthält in Ungarn so gut wie jede Industrieware Importe in Form von Rohmaterialien, Energie, Maschinenamortisation usw. Diese Angewiesenheit auf Importe entsteht jedoch nicht sprunghaft, sondern ist ein allmählich *mit dem Fortschritt sich verstärkender Prozess*. Je höher der erreichte Entwicklungsgrad, umso höher ist der Anteil des Imports, und zwar — dies sei betont — auch in den Waren, die dem *privaten Konsum* dienen. Diese Tatsache entspringt nicht nur der Strukturverschiebung des Verbrauchs von Produkten der Landwirtschaft zu solchen der Industrie, sondern auch dem Umstand, dass sich die produktive Konsumtion in der gleichen Richtung verschiebt, z. B. in der Landwirtschaft von Naturdünger zu Kunstdünger, von Zugvieh zu Traktoren usw.

Hierbei sei betont, dass der Importanteil der sich aus der *Konsumtionsstruktur* ergibt, ausschliesslich vom bereits erreichten Entwicklungs*stand* und *nicht* vom Entwicklungs*tempo* abhängt. Selbstverständlich erfordert auch die Entwicklung — und zwar je höher ihr Tempo, desto mehr — Importe, und zwar für die Modernisierung der Produktionsmittel, gleich ob unmittelbar, als Einfuhr von Maschinen und Instrumenten, oder durch den Ankauf von Lizenzen und »know-how« vermittelt.

Die beiden Arten des Importbedarfs — also der Importbedarf, der vom Entwicklungs*stand* und jener, der vom Entwicklungs*tempo* abhängt — müssen voneinander klar unterschieden werden. Da der Importbedarf — auch unabhängig vom momentanen Entwicklungstempo — mit dem Steigen des Entwicklungsstandes wächst, fordert der höhere Entwicklungsstand auch eine höhere *Exportfähigkeit*. Wenn dies nicht der Fall ist, wenn die Exportfähigkeit mit dem Steigen des Importbedarfs nicht Schritt hält, wird *der Aussenhandel zum Hemmschuh der weiteren Entwicklung*.

Es kann sogar ein Zustand eintreten, bei welchem der Importbedarf für die *einfache* Reproduktion die gesamte Exportfähigkeit in Anspruch nimmt, und dann fehlt jener Exportüberschuss, der die Importe für die Weiterentwicklung decken würde. Um nicht in diese Sackgasse zu geraten, um diesen toten Punkt zu vermeiden, ist also *nur* solch ein Weg der Entwicklung gangbar, auf welchem die Exportfähigkeit andauernd höher bleibt als der Import, der für die einfache Reproduktion auf dem bereits erreichten Entwicklungsstand benötigt wird. Je höher der erreichte Entwicklungsstand, umso *gefährlicher* wird also die Schmälerung der Exportfähigkeit der Industrie, die bei einem Versuch ihrer *forcierten* Erweiterung eintritt.

II. Der Weg und das Ergebnis einer forcierten Industrialisierung unter den in Ungarn gegebenen ungünstigen Bedingungen

1. Die eigentümliche »quasi-entwickelte« Wirtschaftsstruktur Ungarns

Die forcierte Industrialisierung eines Landes führt auch im günstigsten Fall — wenn nämlich alle objektiven und subjektiven Bedingungen ihres Erfolges gegeben sind — vorübergehend zu einer Arbeitsplatzstruktur, die einem höheren *virtuellen* Entwicklungsstand entspricht als der *faktische*, der im wesentlichen von der Berufsstruktur, also von der Meisterung der gegebenen Technik bestimmt wird, und im jeweils erreichten Nationaleinkommen zum Ausdruck gelangt. Im »klassischen« günstigsten Fall ergibt diese Wirtschaftsstruktur eine bedeutende, allgemeine, womöglich *gleichmässige* Spannung zwischen der jeweils gegebenen Arbeitsplatzstruktur und Berufsstruktur, die nicht nur global, sondern bis hinunter zu jedem Betrieb, bis zu jedem Arbeitsplatz die Entwicklung *beschleunigend* wirkt.

Diese gleichmässige Spannung kommt während der forcierten Industrialisierung nur dann zustande, wenn die Meisterung neuer Berufe, der Erwerb neuer Kenntnisse und Erfahrungen nicht bloss durch die Veränderung der Proportionen zwischen den einzelnen Wirtschaftszweigen, sondern auch durch die andauernde Modernisierung jedes einzelnen Betriebes, ja eines jeden einzelnen Arbeitsplatzes *erzwungen und ermöglicht* wird.

Obwohl die gegenwärtige Wirtschaftsstruktur Ungarns gewisse allgemeine, charakteristische Merkmale der im »klassischen Fall« der Forcierung entstehenden Struktur aufweist, entspricht sie bei weitem nicht der oben betonten Forderung einer *gleichmässigen* Spannung. Die ungünstigen Bedingungen der Forcierung führten nämlich in Ungarn zu einem *eigentümlichen Strukturgefüge*, mit einer bedeutenden Spannung in der Makrostruktur und dem — zumindest stellenweise — völligen *Fehlen* der Spannung in der Mikrostruktur. Diese eigentümliche Wirtschaftsstruktur wollen wir *»quasi-entwickelt«* nennen. Mit anderen Worten: Die Spannung zwischen der Arbeitsplatz- und Berufsstruktur ist in der Regel nur für diejenigen wirksam, die aus einem Wirtschaftszweig (vor allem der Landwirtschaft) in einen anderen übergehen, für jene hingegen, die bei ihrem ursprünglichen Beruf bleiben, die im selben oder einem ähnlichen Betrieb weiterarbeiten, fehlt die nötige Spannung, d. h. sowohl der Zwang als auch die Möglichkeit die Berufskenntnisse am Arbeitsplatz selbst zu erweitern, neue, moderne Technik zu meistern.

Es sei bemerkt, dass die »quasi-entwickelte« Struktur nicht bewusst angestrebt wurde, sondern während und nach dem ersten Anlauf zur forcierten Industrialisierung auf folgende Weise entstanden ist: Die extensive Erweiterung der Industrie — der Bau von neuen Fabriken sowie die extensive Erweiterung von bestehenden (eine Erweiterung, die irreführend »Rekonstruktion« der Betriebe genannt wurde) — nahm gleich zu Beginn so gut wie die ganze

Investitionskapazität in Anspruch, so dass für die Modernisierung der bestehenden Betriebsanlagen fast nichts übrig blieb. Durch diese extensive Erweiterung der Industrie wuchs nun der Importbedarf an Rohstoffen, ohne dass die Exportfähigkeit — vor allem für den Export in höher entwickelte Länder — entsprechend gewachsen wäre. Um nun den Importbedarf zu decken, versuchte man die Produktion höher zu schrauben und dies abermals durch die extensive Erweiterung der Industrie. Durch diese Spirale — Produktionserweiterung, um auch bei schlechtem »Wirkungsgrad« den wachsenden Rohstoffimport zu sichern — konnte jedoch die eingangs eingetretene *Diskrepanz* zwischen Importbedarf und Exportfähigkeit der Industrie keineswegs vermindert werden, sondern wurde in ständig wachsendem Ausmass, also erweitert reproduziert. Durch diese — scheinbar zwangsläufige — Spirale verminderte sich vor allem die Möglichkeit, den andauernd wachsenden Bestand an Maschinen und Betriebsanlagen zu modernisieren; insbesondere schmälerte sich — zumindest im Verhältnis zu den andauernd in den Hintergrund gedrängten und sich daher aufhäufenden Modernisierungsbedürfnissen der Industrie — die Möglichkeit der Einfuhr von Maschinen aus dem Westen.

Als Endergebnis besteht jetzt einerseits — durch den raschen Zustrom von Arbeitskräften aus der Landwirtschaft in die Industrie — eine *makrostrukturelle* Spannung, die insofern günstig ist, als sie für viele Tausende überhaupt erst die Möglichkeit geschaffen hat, die Erfahrungen und Kenntnisse von Industriearbeitern zu erwerben. Andererseits gibt es heute viele Betriebe, deren technische Ausrüstung seit Jahrzehnten kaum modernisiert wurde, in denen also auch die zur Entfaltung der Kenntnisse *minimal notwendige* Spannung fehlt.

Für das Entstehen der quasi-entwickelten Wirtschaftsstruktur spielte nicht nur die allzu eng beschränkte Möglichkeit des Maschinenimports aus hochentwickelten Ländern (und die ungenügende Übernahme der modernen Produktionstechnik) eine ausschlaggebende Rolle, sondern auch die forciert extensive Erweiterung der eigenen Schwerindustrie, vor allem des Maschinenbaus.

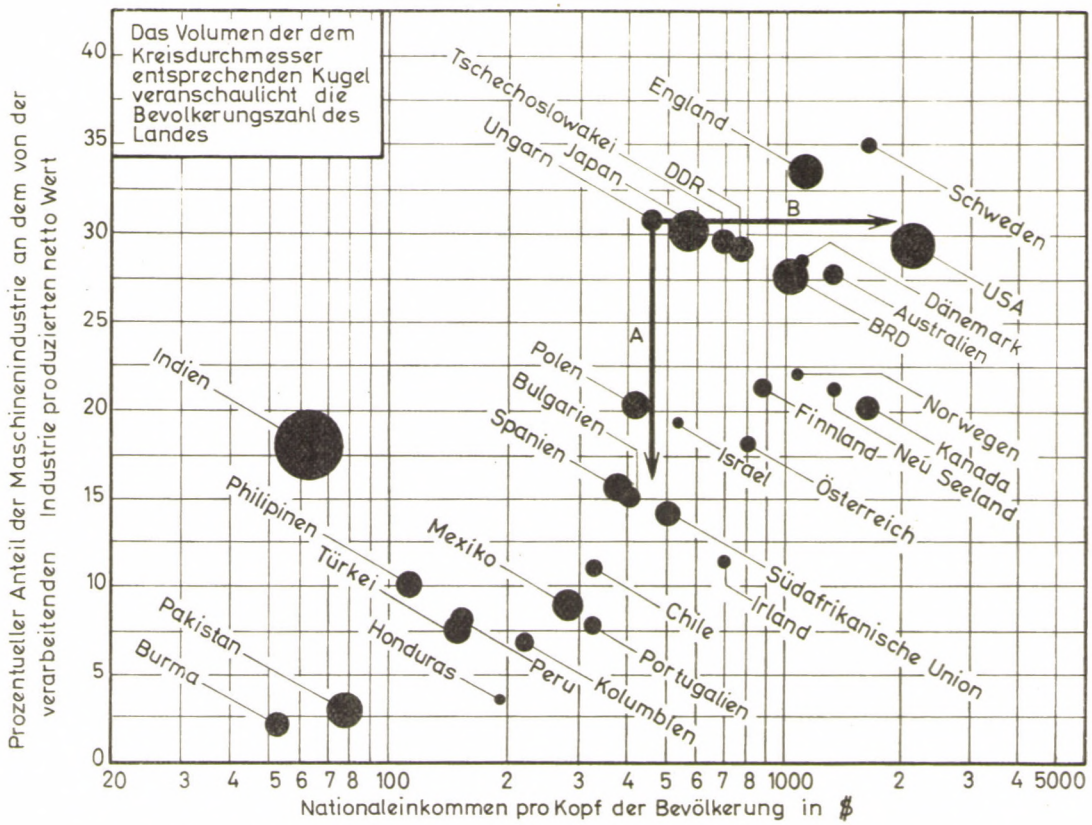
Es sei hier die Frage offengelassen, inwieweit die forcierte Erweiterung der Schwerindustrie als Verwirklichung einer *speziellen* — sich auf die Schwerindustrie beziehenden — wirtschaftspolitischen Konzeption durchgesetzt wurde, oder und inwieweit diese aus der *allgemeinen* Konzeption der forcierten Industrialisierung gewissermassen zwangsläufig folgte, also als Konsequenz der beschränkten Möglichkeit, die erweiterte Industrie mit importierten Ausrüstungen zu versehen.

Wesentlich ist für uns hier bloss der *Endeffekt*, nämlich der Umstand, dass das Bestreben, die Produktion mit einheimischen Maschinen, Betriebsanlagen und Instrumenten zu erweitern, zu der Verschärfung des quasi-entwickelten Zustands beitrug, und zwar durch folgende Rückwirkungen:

a) Die einheimischen Maschinen entsprachen — von Ausnahmefällen abgesehen — bloss dem allgemeinen, bereits erreichten Entwicklungsstand, waren also sozusagen eine Inzucht. Diese gewährleisteten also nur die Erweiterung auf dem bestehenden Niveau, nicht jedoch die effektive Modernisierung der Produktion.

b) Die rasche, extensive Erweiterung des Maschinenbaus (der rasche Zustrom von neuen, noch unerfahrenen Arbeitskräften: vom angelernten Arbeiter bis zum neuernannten Oberingenieur) verminderte sowohl die Qualität als auch den erreichbaren technischen Stand der Erzeugnisse, und hiermit das technische Niveau aller Produktionszweige, die mit diesen ausgerüstet wurden.

c) Da der einheimische Markt für einen vielseitigen Maschinenbau zu eng war, löste die Versorgung der eigenen Industrie mit einheimischen Maschinen eine Lawine aus, nämlich die scheinbar unaufhaltsame Erweiterung des Maschinenbaus für den Export.



Das verhältnismässige Gewicht der Maschinenindustrie in Abhängigkeit vom Entwicklungsstand und der Bevölkerungszahl des betreffenden Landes i. J. 1963

Der ungeheuer *hohe Anteil der Maschinenindustrie* an der Gesamtindustrie — Ungarn steht dieser Kennziffer gemäss in der Welt-Rangliste an der dritten Stelle (siehe Diagramm) — ist eines der bezeichnendsten Merkmale unserer quasi-entwickelten Wirtschaftsstruktur. Das Gewicht, das die Maschinenindustrie eines Landes im Vergleich zu der Produktion der Gesamtindustrie einnimmt, hängt im allgemeinen sowohl vom Entwicklungsstand, als auch von der Grösse des Landes ab. Das Diagramm zeigt, dass das »Gewicht« der Maschinenindustrie in Ungarn ungefähr doppelt so gross ist, als es dem Nationaleinkommen pro Kopf der Bevölkerung und der Bevölkerungszahl Ungarns entsprechen würde (siehe Pfeil A). Oder anders betrachtet, dieses »Gewicht« wäre normal bei einem Nationaleinkommen pro Kopf der Bevölkerung, gleich dem der Vereinigten Staaten (siehe Pfeil B).[2]

Ein weiteres Merkmal der quasi-entwickelten Struktur, das wir hier nur kurz erwähnen wollen, ist die — im Verhältnis zum Entwicklungsstand — sehr hohe *Konzentration der Industrie*, d. h. das Überwiegen von Grossbetrieben und der Mangel an Mittel- und Kleinbetrieben. Hierbei ist der Grossbetrieb häufig nur eine administrative Zusammenfassung kleinbetriebsmässig arbeitender Einheiten, also der Grossbetrieb ist — seiner Produktionsweise nach — nur ein »Quasi-Grossbetrieb«.

Die quasi-entwickelte Struktur könnte man auch als eine Diskrepanz zwischen *Form* und *Inhalt* kennzeichnen. Hierbei bezieht sich fast all das, was nationalökonomisch messbar ist und in der Wirtschaftsstatistik erfasst wird, bloss auf die »Form«. Der Inhalt hingegen, der seinem Wesen nach qualitativer Natur ist, entgeht leicht der nötigen Beachtung. Das »Wieviel«, das gemessen wird, ist im allgemeinen bloss die Form der unerfasst bleibenden, konkreten Qualität, also des »Was«, das den Inhalt darstellt. So und soviel Arbeiter werden hier und dort beschäftigt, so und soviel wird produziert, investiert usw.: das ist die *Form*. Aber *was für* Arbeitskräfte, *was für* Produkte es sind, *was* investiert wird: das ist der verborgen bleibende *Inhalt*. Es ist wohl überflüssig, die — hier nur prinzipiell angedeutete — Diskrepanz zwischen Form und Inhalt, also das Vorhandensein der quasi-entwickelten Struktur durch eine beliebig lang fortsetzbare Reihe von Beispielen zu belegen. (In einem späteren Punkt wollen wir noch auf die Überschätzung des Messbaren zurückkehren.)

Der quasi-entwickelte Zustand bleibt nicht nur in der Statistik, sondern oft auch bei einer unmittelbaren Besichtigung der Produktion verborgen. Der industrielle Produktionsprozess von heute ist nämlich an und für sich ungeheuer imposant, und zwar auch in dem extremen Fall, wenn *nur* Aus-

[2] Die Abbildung ist einer noch nicht publizierten Arbeit von Zsuzsa Bekker »Der Zusammenhang zwischen dem wirtschaftlichen Entwicklungsstand und der Struktur der Industrie« entnommen.

schuss produziert wird. Die scheinbar unbedeutenden und doch wesentlichen Unterschiede zwischen dem wahrhaft gemeisterten und dem bloss im grossen und ganzen funktionierenden Produktionsprozess sind in den meisten Fällen nur für den erfahrenen Fachmann — und auch für ihn nur bei einer eingehenden Prüfung und Analyse — erkennbar.

Nur als »Verbraucher« spürt man unmittelbar den quasi-entwickelten Zustand, und zwar nicht nur als privater Konsument, sondern auch in der Produktion, als produktiver Verbraucher. Ja, es ist die Regel, dass jeder Betrieb die unzureichende Qualität seiner eigenen Erzeugnisse mit der schlechten Qualität der von ihm verbrauchten Rohstoffe, Halbfabrikate, Werkzeuge, usw. begründet. Und dies ist zumeist nicht bloss eine Ausrede! Die Überwindung des quasi-entwickelten Zustandes ist eben deshalb so schwierig, weil sie nur *schrittweise* und nur auf der gesamten Front der Produktion gleichzeitig vonstatten gehen kann.

Hiermit kommen wir noch einmal zum Ausgangspunkt unserer Analyse zurück. Die Planwirtschaft schafft einen Freiheitsgrad, innerhalb dessen nicht nur vorteilhafte, sondern auch ungünstige Wege beschritten werden können. Das Entstehen der quasi-entwickelten Struktur ist das Ergebnis eines ungünstigen Weges, der nur beschritten werden kann, wenn jene, die die Nachteile zu spüren bekommen, also die Verbraucher — gleich ob die privaten oder produzierenden — keinen genügenden Einfluss auf die Produktion haben. (Wenn der Markt nicht wirkt oder wenn er von den Produzenten anstatt den Verbrauchern beherrscht wird.)

2. *Der Weg zu einer aussenhandelsgebundenen Quasi-Autarkie*

Die Industrialisierung eines kleinen, rohstoffarmen Landes führt auch im Falle einer nichtforcierten Industrialisierung unvermeidlich zu einer — sich mit dem Entwicklungsstand steigenden — Aussenhandelsgebundenheit. Durch eine forcierte Industrialisierung wird, wie wir schon ausführlich darlegten — infolge des Zurückbleibens der Exportfähigkeit gegenüber dem Importbedarf — die Aussenhandelsgebundenheit zu einem Engpass der Entwicklung. (Wie bedeutend der Rückstand der Exportfähigkeit Ungarns ist, kann man daran erkennen, dass der reelle Umrechnungskurs für die innere Kaufkraft des Forints — z. B. bei der Berechnung des Nationaleinkommens pro Kopf der Bevölkerung — keinesfalls höher als 40 Ft/$ ist, während der Umrechnungskurs für den Export durchschnittlich bei oder sogar über 60 Ft/$ liegt. Die zu niedrige Exportfähigkeit erzwingt also alle Exportmöglichkeiten, auch die unrentablen zu realisieren.)

Die Aussenhandelsgebundenheit Ungarns hat sich — trotz anfänglich bewusster autarkischer Bestrebungen und trotz späterem, zwangsläufigem Importersatz — objektiv unaufhaltsam verstärkt. Und doch hat sich die Wirt-

schafts*struktur* Ungarns in der Weise deformiert, dass sie in vieler Hinsicht der einer grossen, autarkischen Wirtschaftseinheit ähnelt. Die zwei Prozesse, nämlich einerseits eine Verschiebung der Wirtschaftsstruktur in der Richtung zur Autarkie und andererseits ein Wachsen der Aussenhandelsgebundenheit, *schliessen sich also gegenseitig nicht aus.*

Das bekannte Dilemma, ob die Aussenhandelsbilanz durch *Exportsteigerung* oder durch *Importersatz* ins Gleichgewicht gebracht werden kann, geht nicht bis an die Wurzel des Problems, denn ohne die Überwindung des quasi-entwickelten Zustands kann keine der beiden »Rezepte« die Aussenhandelsschranke der weiteren Entwicklung eliminieren. So ist es z. B. aussichtslos, den Entwicklungsengpass durch die Erweiterung einer quasi-entwickelten Maschinenindustrie zu überwinden, und zwar unabhängig davon, ob die mit diesem Ziel produzierten (rückständigen) Betriebsanlagen als Importersatz im Inland eingesetzt werden, oder bei 100 Ft/$ einer Exporterweiterung dienen.

Die Lösung dieses Problems kann nur als Ausweg aus folgender, sich immer enger ziehender, die Entwicklung erdrosselnder Spirale gesucht und gefunden werden. Die Spirale beginnt mit der forcierten Industrialisierung; diese führt zu einer immer schwieriger und teuerer aufrechterhaltbaren Aussenhandelsbilanz; diese weiter zum »Alles-selbst-erzeugen-und-erfinden«, um Valuten zu sparen; das »Selbsterzeugen« zu einer nicht exportfähigen, aussenhandelsgebundenen, autarkischen, quasi-entwickelten Struktur; diese zu einem weiteren Sinken der Exportfähigkeit usw.

3. Der quasi-entwickelte Zustand als Hindernis der weiteren Entwicklung

Aus dem quasi-entwickelten Zustand ergeben sich nicht bloss die bereits dargelegten Aussenhandelsschwierigkeiten, sondern noch folgende, die Weiterentwicklung erschwerende Umstände:

a) Die Arbeitsproduktivität wächst mit der Entwicklung im allgemeinen am schnellsten in der serienmässigen und insbesondere in der Massenproduktion. Im Vergleich zu diesem Wachstumstempo ist das Steigen der Arbeitsproduktivität bei der Instandhaltung und Reparatur geringfügig und deshalb werden die Instandhaltungsarbeiten verhältnismässig immer teurer, besonders da diese hochqualifizierte Arbeit beanspruchen. Wenn nun in einem quasi-entwickelten Zustand die Qualität und hiermit die Zuverlässigkeit der Produktionsmittel und der dauerhaften Konsumtionsgüter auf einem niedrigen, dem Entwicklungsstand nicht adäquaten Niveau steht, so gesellt sich zu der »billigen« Massenproduktion eine unverhältnismässig wachsende, teure Instandhaltung und Reparatur.

b) Gewisse Stufen der technischen Entwicklung, vor allem die Automatisierung von Produktionsprozessen, werden durch eine unzureichende

Qualität der Maschinen, der Instrumente, der zu verarbeitenden Rohmaterialien usw. völlig ausgeschlossen. Auf vielen Gebieten ist die Verbesserung der Qualität die unablässige Vorbedingung der weiteren Entwicklung. In diesen Fällen ist die Überwindung des quasi-entwickelten Zustands der einzig mögliche Weg des Fortschritts.

III. Die irreführende Bewertung einiger wesentlicher Zusammenhänge

1. Die Diskontinuität in der Wirtschaftsleitung und ihre Folgen

Mit der politischen Machtübernahme wurden — bis zu einem gewissen Grad zwangsläufig — so gut wie alle Kommandostellen der Wirtschaftsleitung und Verwaltung neu besetzt. Diese Diskontinuität in der Wirtschaftsleitung ergab für die neueingesetzten — in vielen Fällen für sie selbst unerwartet ernannten —, leitenden Wirtschaftsfunktionäre die Notwendigkeit, den Mangel an Erfahrungen irgendwie zu überbrücken: sie wurden auch im besten Fall, nämlich auch wenn sie über die nötige Schulbildung verfügten — als Leiter zu Autodidakten. Im allgemeinen war nämlich niemand vorhanden, von dem sie die speziellen »Manager-Erfahrungen« hätten übernehmen können. Sie mussten mit ihrer Aufgabe, so gut sie konnten, ihrem eigenen Gutdünken nach fertig werden.

Die folgenden *zwei Umstände* erweckten den *Schein*, als ob dieses Autodidaktentum und der hiermit verbundene Dilettantismus eine *erfolgreiche* Wirtschaftsführung gewährleisten würden.

Einerseits ist nämlich die Vitalität eines Betriebes (d. h. die Eigenschaft, sich am Leben zu erhalten und zu produzieren) ungeheuer stark. So wie eine gut eingespielte Mannschaft ein Schiff auch in den Hafen bringt, wenn der Kapitän besoffen ist, so funktioniert eine Fabrik — zumindest eine gewisse Zeit lang — weiter, auch wenn der Direktor nur ein scheinbarer Dirigent ist. (Als einmal ein Komponist bei einem Jubiläumskonzert die Stelle des Dirigenten in Anspruch nahm, drohten ihm die Musikanten in der Pause: »Wenn sie jetzt uns kein Fass Bier stellen, so spielen wir im weiteren das, was sie dirigieren !«) Hierzu kommt noch, dass die Vitalität der Betriebe während der Rekonstruktionsperiode nicht bloss zur Aufrechterhaltung, sondern auch zum Wiederankurbeln der Produktion genügte.

Andererseits schien es, als ob der neue Direktor seiner Aufgabe gewachsen wäre, wenn die Produktion *überhaupt* lief; kaum wurde nach der Rentabilität gefragt, kaum unterlag diese einer subjektiven oder objektiven Kontrolle. Nur wenn die Rentabilität »bei Strafe des Untergangs« erzwungen worden wäre, hätten sich die Schranken des Autodidaktentums klar gezeigt.

Aus den scheinbaren Erfolgen des Dilettantismus entstand die Ansicht, dass die Fachkenntnisse im Vergleich zu der politischen Zuverlässigkeit nur

von zweitrangiger Bedeutung seien. Bestehen von sogenannten »objektiven Schwierigkeiten« wurde geleugnet und so ist es nicht verwunderlich, dass auf dieser Grundlage der Voluntarismus gedeihen konnte.

Bald wurde das Autodidaktentum und die hieraus entspringende Unterschätzung der Fachkenntnisse und insbesondere der Erfahrungen auch auf das Gebiet der Technik übertragen. Nur ein Beispiel aus eigener Erfahrung: Im Konstruktionsbureau für Hüttenwesen wurden Pläne für die Rekonstruktion und Erweiterung der Betriebe in Ózd und Diósgyőr ausgearbeitet, obwohl es unter den hieran arbeitenden Ingenieuren keinen einzigen gab, der auf diesem Gebiet irgendwelche Erfahrung gehabt hätte. *Sogar dieses* Autodidaktentum schien mit Erfolg gekrönt, und zwar aus dem schon vorher erwähnten Grunde. Wenn aus den Hochöfen Roheisen, aus den Martin-Öfen der Stahl floss, wenn die Walzwerke überhaupt funktionierten, galt die Aufgabe als erfüllt; nach den Kosten wurde kaum gefragt.

Es wird viel über das oft übertriebene politische Misstrauen dieser Periode gesprochen, doch selten erkannt, dass sich zu diesem Misstrauen ein blindes, an die Waghalsigkeit eines mondsüchtigen grenzendes *Vertrauen* an den Erfolg des Fachdilettantismus gesellte.

Für Ingenieure, insbesondere für Konstrukteure war dieser Zustand — zumindenst vom Standpunkt der schöpferischen Tätigkeit, insoweit sich diese unmittelbar auf die Erfüllung der vom Plan vorgeschriebenen Ziele richtete — ein Paradies, in dem die Phantasie freien Lauf hatte, ohne von profanen Wirtschaftlichkeits-Forderungen im Zaume gehalten zu werden. Dieses »Alles-selbst-entdecken-erfinden-konstruieren-und-aufbauen« traf sich mit der Devisen-Knappheit: die Wirtschaftsfunktionäre waren froh Devisen zu ersparen, die Ingenieure begeistert interessante, schöpferische Arbeit zu vollbringen. In den Forschungsinstituten wurde nach schon Bekanntem geforscht, da diese Forschungstätigkeit für die Beteiligten interessanter und »einträglicher« war, als die Übernahme und die Anwendung von Errungenschaften aus höherentwickelten Ländern gewesen wäre. Ja, die Initiative, Lizenzen oder »know-how« zu kaufen, wird niemals von den Fachingenieuren ausgehen, oder nur dann, wenn auch sie für die Rentabilität verantwortlich sind, oder an dieser grösseres Interesse als an der Verwirklichung ihrer eigenen Ideen haben. Die verhältnismässige Schwäche der ökonomischen Leitung im Vergleich zu den technischen Fachkräften trug meiner Meinung nach viel dazu bei, die Entwicklung in die bereits dargelegte Richtung der aussenhandelsgebundenen Quasi-Autarkie zu treiben.

So entstand aus der »zeitlichen« Diskontinuität (d. h. aus der Unterbrechung der Übernahme von Erfahrungen aus der Vergangenheit in die Gegenwart) eine Diskontinuität im »räumlichen Nebeneinander« (d. h. eine Unterbrechung in der Übernahme von Erfahrungen aus wirtschaftlich höher entwickelten Ländern). Wer selbst nicht über ausreichende Erfahrungen verfügt,

unterschätzt oft die Notwendigkeit, Erfahrungen anderer zu übernehmen, obwohl das Gegenteil — gerade in diesem Fall — zweckmässiger wäre.

So kam es zu einer fatalen Wechselwirkung zwischen den objektiven und subjektiven Gründen der Isolation, zu einem Schaffen aus eigenen Kräften.

2. Die Fetischisierung des Messbaren, ihre Ursachen und Wirkungen

Die *Überschätzung des Messbaren*, also der rein quantitativ fassbaren Resultate — die in der Regel auf Kosten des Nichtgemessenen, also des Schwer- oder Nichtmessbaren erzielt wurden — hat eine Reihe von gemeinsam wirkenden Ursachen; die primäre war wohl das Bestreben, die fehlende Kontrolle des Marktes zu ersetzen. Die Kontrolle des Marktes scheint zwar auch rein quantitativ zu sein, denn der Markt misst alles in einer einzigen Dimension: dem Geld. Und doch steckt hinter dieser einen Quantität die ungeheuer vielseitige Beurteilung aller qualitativen Eigenschaften der Waren.

Es stellte sich bald heraus, dass ein Plan, der die Produktion von so und soviel Stück oder Tonnen vorschreibt, weit weniger Aussagekraft hat, als die Geldeinheiten hätten, für die diese Produkte — auf den Markt gebracht — verkauft werden könnten. Die Kontrolle der Planerfüllung löste eine Lawine der vorgeschriebenen und zu messenden Parameter aus, und doch blieben immer — unvermeidlich — nicht erfasste oder praktisch nicht messbare Momente der Produktion und der Produkte, auf deren Kosten der Plan formell erfüllt werden konnte. Was nämlich nicht gemessen wurde oder nicht gemessen werden konnte, galt als nicht-existierend.

Eine weitere Ursache der Überschätzung des quantitativ Messbaren scheint mir die im vorigen Punkt dargelegte *Diskontinuität* in den praktischen Erfahrungen zu sein. Wer keine Erfahrungen im Kochen hat, möchte im Kochbuch alles quantitativ vorgeschrieben finden; wer von einer Sache nichts versteht, glaubt sein Unwissen durch messbare Kriterien eliminieren zu können.

Dieses Problem der Überschätzung des Messbaren steht in viel engerer Verbindung mit der im vorangegangenen behandelten Deformation unserer Wirtschaftsstruktur, als üblich angenommen wird. Die Auswirkung beschränkt sich nämlich nicht bloss auf die offensichtliche Vernachlässigung der Qualität der einzelnen Produkte. Die Auswirkung ist viel genereller. Der technische Fortschritt ist nämlich primär eine *qualitative* Wandlung. Aus einer Forcierung der quantitativen Erweiterung der Produktion — und eben diese ist am leichtesten messbar, daher »glaubwürdig« — kommt *unmittelbar* keine Entwicklung zustande.

Weiter muss noch in Betracht gezogen werden, dass jeder wesentliche Fortschritt mit einem *Risiko* verbunden ist, das kaum quantitativ erfasst werden kann. Die Forderung, das erwartete Resultat quantitativ zu belegen, verhindert oft, das für den Fortschritt unumgänglich notwendige Risiko zu wagen.

Des weiteren wurden im allgemeinen Investitionen, die *nicht unmittelbar* der Erweiterung der Produktion dienen, z. B. solche zur Verbesserung der Qualität der Produkte, zur Hebung des Wirkungsgrades des Produktionsprozesses, zur Rohstoffeinsparung usw., in den Hintergrund gedrängt. Es wurden also *eben jene* Anstrengungen unterlassen, die die ungünstigen Folgen der forcierten Industrialisierung (vor allem die Schwierigkeit des Ausgleichs der Aussenhandelsbilanz) zumindest gelindert hätten.

3. Wirtschaftsmechanismus und wirtschaftspolitische Konzeption

Um den Zusammenhang zwischen dem Wirtschaftsmechanismus und der wirtschaftspolitischen Konzeption klarer zu fassen, müssen wir nochmals zu dem Ausgangspunkt unserer Analyse zurückgreifen, und zwar zu der Gegenüberstellung von Markt- und Planwirtschaft. Wir wiederholen: die Marktwirtschaft — d. h. das uneingeschränkte Walten der Marktgesetze — schliesst eine forcierte Industrialisierung prinzipiell aus, während die Planwirtschaft — wenn sie die Marktkontrolle völlig ausschaltet — eine prinzipielle *Möglichkeit* für die Forcierung schafft. Ob jedoch *dieser* oder ein *anderer* Weg betreten wird, hängt von der gefassten wirtschaftspolitischen *Konzeption* ab.

Diese im Grunde genommen selbstverständliche Tatsache muss hier nur deshalb wiederholt werden, weil die irreführende Ansicht, die den bisherigen Verlauf unserer wirtschaftlichen Entwicklung und vor allem die sich aus dieser ergebenden Wachstumsschwierigkeiten ausschliesslich der überzentralisierten Planung, d. h. dem »alten« Wirtschaftsmechanismus zuschreibt, auch heute noch, wenn auch immer seltener, auftaucht.

Wäre diese Auffassung zutreffend, so würde es genügen, den Wirtschaftsmechanismus umzugestalten und eine richtige wirtschaftspolitische Konzeption wäre von keinerlei, oder höchstens von zweitrangiger Bedeutung.

Das Gegenstück zu dieser falschen Auffassung ist vielleicht noch irreführender. Diese könnte man folgendermassen formulieren: Das zentralisierte Modell der Planwirtschaft gibt den höchsten Freiheitsgrad, also den grössten Spielraum, innerhalb dessen der Entwicklungsweg gewählt werden kann. Es hängt also *alles* von der richtigen wirtschaftspolitischen Konzeption ab. Wenn diese gefunden und durchgesetzt wird, so braucht man keinen neuen Wirtschaftsmechanismus, keine einschränkende Kontrolle des Marktes. Wenn man bewusst den *richtigen Weg* geht, braucht man ja nicht vom Markt »bei Strafe des Untergangs« auf diesen gezwungen zu werden.

Diese Auffassung ist, so wie sie hier formuliert wurde, eigentlich richtig, nur enthält sie — was oft vergessen wird — das wichtige Wort »wenn«! *Wenn* der richtige Weg — und zwar eine reine Planwirtschaft vorausgesetzt — in *allen* Details gefunden und durchgesetzt wird, *wäre* tatsächlich alles in Ordnung. Nun ist aber der Markt *nicht nur eine Beschränkung* der gangbaren Mög-

lichkeit, *sondern auch ein Indikator*, der bei der Entscheidung von zahllosen Wirtschaftsalternativen von Nutzen ist und zumindest eine nachträgliche wertvolle Kontrolle der Entscheidungen gewährleistet.

Betrachten wir den Zusammenhang zwischen Wirtschaftsmechanismus und wirtschaftspolitischer Konzeption von diesem Gesichtspunkt aus, so kann folgendes festgestellt werden. Im Falle einer forcierten Industrialisierung, die vor allem eine extensive Erweiterung der Industrie erfordert, ist der Markt als *Schranke* vielleicht wesentlicher als der Markt als Indikator. Das gesetzte Ziel — die Struktur eines höher entwickelten Landes — liegt klar vor Augen, es kann wohl auch ohne die Hilfe des Indikators angestrebt und erreicht werden.

Anders verhält es sich bei einer — für Ungarn zur unbedingten Notwendigkeit gereiften — Konzeption, mit dem Ziel, von einer quasi-entwickelten Struktur zu einer faktisch entwickelten zu gelangen, also einer Konzeption mit einer »intensiven« Entwicklung als Zielsetzung. In diesem Fall wird der Markt als *Indikator* unentbehrlich, der Markt als *Schranke* hingegen verliert an Bedeutung. Der »alte« Wirtschaftsmechanismus wurde also *nicht an und für sich* zum Hemmschuh der Entwicklung, sondern deshalb, weil dieser einem — für uns nicht gangbaren — Weg einer forcierten Industrialisierung diente.

Um auf einen gangbaren Weg der wirtschaftlichen Entwicklung zu gelangen, muss also sowohl mit dem alten Wirtschaftsmechanismus, als auch mit der *alten Wirtschaftskonzeption* radikal gebrochen werden.

IV. Die Überwindung des quasi-entwickelten Zustands, als wirtschaftspolitische Konzeption

Aus der vorangehenden Darlegung der wirtschaftlichen Entwicklung Ungarns sowie der gegenwärtigen, eigenartigen, widersprüchlichen, quasi-entwickelten Wirtschaftsstruktur folgt fast unmittelbar die wirtschaftspolitische Konzeption, die meiner Ansicht nach notwendig ist, um die sich zusehends verstärkenden Wachstumsschwierigkeiten zu überwinden.

Den Grundsatz der wirtschaftspolitischen Konzeption könnte man kurz folgendermassen fassen: Die wesentlichste strategische Zielsetzung sei *die Überwindung des quasi-entwickelten* Zustandes, und zwar einerseits durch die völlige Meisterung der bestehenden Produktionstechnik, andererseits durch die Modernisierung der — während der forcierten, extensiven Erweiterung — veralteten Produktionszweige. Die Betonung muss also nicht (wie bisher) auf das »*Mehr*«, sondern — um dieses »Mehr« überhaupt erreichen zu können — auf das »Besser« gelegt werden. Indem durch das »Besser« der Wirkungsgrad des gesamten Produktionsprozesses gehoben wird, kann meiner Meinung nach ein grösserer Endeffekt erzielt werden, als durch das unmittelbare Anstreben

des quantitativen Zuwachses, da dies den Wirkungsgrad voraussichtlich noch weiter senken würde.

Ich bin mir dessen bewusst, dass eine derartige — allen bisherigen Vorstellungen und jeder bisherigen Praxis und Routine entgegengesetzte — Konzeption eine ganze Reihe zu beantwortender Fragen aufwirft. Die folgenden scheinen mir am wesentlichsten:

1. Ist das überhaupt eine wirtschaftspolitische Konzeption?

Wenn man den Begriff »wirtschaftspolitische Konzeption« für eine einzige, bisher übliche Konzeption, nämlich für die einer extensiven Erweiterung der Industrie, mit Beschlag belegt, so ist natürlich jede andersgeartete Konzeption überhaupt keine. Wenn ausschliesslich die quantitative Erweiterung als Konzeption anerkannt wird, also z. B. eine solche, die vorsieht, jährlich statt 5000, sagen wir 6000 — zum grössten Teil nicht funktionierende — Aufzüge zu bauen, so wird die Zielsetzung, dass die Aufzüge vor allem funktionieren sollen, nicht als Konzeption anerkannt werden. Meiner Meinung nach war die Konzeption, die Quantität um jeden Preis, auch auf Kosten der Qualität zu steigern, eine Konzeption, auch wenn nicht die beste. Ebenso ist die Zielsetzung, mit dieser Konzeption radikal zu brechen, eine Konzeption, und zwar die entgegengesetzte.

2. Enthält diese Konzeption überhaupt mehr als das, was durch den neuen Wirtschaftsmechanismus automatisch gewährleistet wird?

Der neue Wirtschaftsmechanismus setzt natürlich der unrentablen, rein quantitativen Erweiterung — also der veralteten, in eine Sackgasse führenden Konzeption — Schranken, und zwar umso engere, je konsequenter die Wirkung der Marktgesetze gewährleistet wird. Die Rentabilitätskontrolle in Kraft treten zu lassen, *ohne* mit der wirtschaftspolitischen Konzeption der forcierten Industrialisierung *radikal* zu brechen, wäre jedoch ebenso widersinnig, wie sich eine Zwangsjacke anzulegen, bloss um sich selbst daran zu hindern, auf eine Wand zu klettern, von der man fürchtet, in den Abgrund zu stürzen.

Die Marktkontrolle, als Ergänzung zur Planung, wird in Ungarn nur dann nicht zur Zwangsjacke werden und kann nur dann als Indikator dienen, wenn die wirtschaftspolitische Konzeption die heute aktuelle und reelle Aufgabe stellt, den quasi-entwickelten Zustand zu überwinden.

Dass nur die *Kombination* von richtiger Zielsetzung und adäquaten Methoden ihrer Verwirklichung (entsprechender Mechanismus) zum Ziel führt, zeigt z. B. der ungeheure Vorsprung, den in der Sowjetunion die Rüstungsindustrie vom Gesichtspunkt des technischen Niveaus gegenüber der Industrie im allgemeinen erreicht hat. Diesen Vorsprung hat die Rüstungsindustrie ei-

nerseits dem Umstand zu verdanken, dass die technische Vervollkommnung und die hohen Qualitätsforderungen ein unablösbarer Teil der (in diesem Fall natürlich militärpolitischen) Konzeption war; andererseits der Tatsache, dass auf diesem Gebiet der »Verbraucher«, und nicht der Produzent, der Herr der Lage war: dass es für unbefriedigende Qualität kein Pardon gab.

Auch darf nicht ausser acht gelassen werden, dass der »Automatismus« des Wirtschaftsmechanismus nur dann zum Erfolg führt, wenn die »Spielregeln«, die dieser umfasst, dem gesetzten Ziel entsprechen. Eine Konzeption zur Überwindung des quasi-entwickelten Zustands fordert andere Spielregeln als die Konzeption einer weiteren, extensiven Industrialisierung.

3. Bezieht sich diese Konzeption nicht bloss auf eine kurze Übergangsperiode?

Der quasi-entwickelte Zustand hat sich im Verlauf von mehr als zwei Jahrzehnten herausgebildet und der routinemässig gewordene Arbeits-, und Leitungsstil hat tief Wurzel gefasst. Meiner Meinung nach wäre es eine Illusion, diesen Zustand innerhalb einiger Jahre überwinden zu können.

Hierzu kommt noch, dass der neue Prozess sich nur *allmählich* beschleunigen kann, da er nahe an einem Totpunkt begonnen werden muss, in dem — infolge des schlechten Wirkungsgrades der Industrie — allzu wenig für die Modernisierung der in den zwei Jahrzehnten vernachlässigten Gebiete aufgewendet werden kann. Ungarn ist nicht von Geburt aus ein kapitalarmes bzw. devisenarmes Land. Es wird aber vom gegenwärtigen Zustand aus viel Zeit in Anspruch nehmen, bis der neue Kurs spürbare, den weiteren Prozess beschleunigende Resultate gewährleistet.

Da der quasi-entwickelte Zustand teilweise eine Folge der allzu raschen Strukturverschiebung ist, also dem Fehlen von nötigen Traditionen und Erfahrungen zugeschrieben werden muss, ist es nicht verwunderlich, dass zumindest ein Jahrzehnt benötigt werden wird, um ausreichende Erfahrungen aufzuhäufen. (Erfahrungen müssen oft über Jahrzehnte hinaus gesammelt werden, bis sie zur Tradition werden. Man denke an Firmen, wie SKF, Zeiss, Siemens usw.) Die Ungeduld war vielleicht eines der wesentlichsten Merkmale der forcierten Industrialisierungsperiode. Mit Ungeduld wird man in der Zukunft noch weniger erreichen.

Obwohl die Überwindung des quasi-entwickelten Zustands dem Wesen nach bloss eine Übergangsperiode bildet, wird diese ziemlich lange dauern, jedenfalls länger als ein oder zwei Fünfjahrespläne.

4. Soll diese Konzeption jedwede Strukturveränderung ausschliessen?

Jede richtige Vorstellung ist der Gefahr ausgesetzt, durch ihre extreme Übertreibung und einseitige Überschätzung ad absurdum geführt zu werden.

Die strickte Gegenüberstellung, nämlich *entweder* Meisterung der gegebenen Struktur *oder* Strukturveränderung, ist eine falschgestellte Alternative. Einerseits fordert nämlich die Überwindung des »quasi-entwickelten« Zustands eine Unzahl von Veränderungen der Mikrostruktur, so z. B. der »Warenstruktur«, andererseits handelt es sich auch bezüglich der makrostrukturellen Veränderungen bloss um den Wechsel in der Priorität: bisher wurde die Priorität der forcierten Strukturveränderung gegeben, und die Meisterung und Modernisierung des Vorhandenen in den Hintergrund gedrängt. Jetzt muss meiner Meinung nach die Hierarchie umgedreht werden. Die Konzeption wäre also: statt einer forcierten Strukturveränderung auf Kosten der Möglichkeit ihrer entsprechenden Meisterung — eine forcierte Meisterung auf Kosten des *Tempos* der auch weiterhin sich als unerlässlich erweisenden Strukturveränderungen.

5. Inwieweit sind die objektiven Voraussetzungen zur Verwirklichung dieser Konzeption gegeben?

Eingangs wiesen wir darauf hin, dass es möglich, ja sogar ratsam ist, »mit dem Aufsuchen der relativ günstigen Richtung zu beginnen und diese erst nachträglich dermassen zu konkretisieren, dass sie innerhalb des objektiv gegebenen Spielraums zu liegen kommt«. Die Konzeption selbst weist tatsächlich bloss auf eine »relativ günstige« Richtung hin, und es bleibt noch zu prüfen, inwieweit die gegenwärtig objektiv gegebenen Umstände ihre Verwirklichung *ermöglichen*, oder — genauer genommen — inwieweit diese dem Tempo ihrer Verwirklichung eine *obere Grenze* setzen.

Da diese Untersuchung eine Aufgabe ist, die die Kräfte eines einzelnen weit überschreitet, müssen wir uns darauf beschränken, auf einen einzigen, für die Verwirklichung der Konzeption günstigen Umstand hinzuweisen.

Ganz allgemein genommen gibt es — sowohl in der Natur als auch in der Gesellschaft — Prozesse, die ihre ausgangs objektiv gegebenen Voraussetzungen allmählich vernichten und deshalb absterben, andererseits solche, die ihre Voraussetzungen verstärken und demzufolge wie eine Kettenreaktion anschwellen. Während nun in Ungarn die forcierte Industrialisierung ihre eingangs — wenn auch mangelhaft — gegebenen Voraussetzungen aufbrauchte und zerstörte, ist die Eliminierung des »quasi-entwickelten« Zustandes ein Prozess, der — sobald die ungeheueren Schwierigkeiten diesen Prozess in Gang zu bringen, überwunden sind — seine anfangs nur spärlich gegebenen objektiven Voraussetzungen (so z. B. das Verhältnis von Importbedarf und Exportfähigkeit) allmählich verbessert, sich also verstärkt.

Um aber diesen sich selbst verstärkenden Prozess einzuleiten, muss zuerst mit der eingebürgerten Praxis und den althergebrachten Anschauungen *radikal* gebrochen werden.

6. Kann eine derartige Konzeption in einem langfristigen Plan überhaupt erfasst und konkretisiert werden?

Ich möchte den Spiess umdrehen und die folgende Frage aufwerfen: Inwieweit ist unsere gegenwärtige, quasi-entwickelte Wirtschaftsstruktur — aus der sich die bekannten Wachstumsschwierigkeiten ergeben — die Folge dessen, dass immer wieder nur diejenigen Entwicklungsrichtungen gewählt wurden, die vom Plan erfasst und konkretisiert werden konnten? Oder mit anderen Worten: Ist die gegenwärtige Deformation unserer Wirtschaftsstruktur nicht eben die Folge dessen, dass eine dem übernommenen, traditionellen Planungssystem entsprechende wirtschaftspolitische Konzeption gewählt wurde, statt das Planungssystem der objektiv zweckmässigen wirtschaftspolitischen Konzeption entsprechend umzugestalten? Dass sich das auf den Kopf gestellte Verhältnis von Planungsmethoden und wirtschaftspolitischer Konzeption bisher erhalten hat, ist wohl auch dem Umstand zuzuschreiben, dass es keine so klare und entschiedene Konzeption gab, die die Veränderung dieses Verhältnisses erzwungen hätte.

Die Einführung des neuen Wirtschaftsmechanismus beantwortet an und für sich diese Frage, da der neue Wirtschaftsmechanismus *der erste entschiedene Versuch* ist, das in der Vergangenheit auf den Kopf gestellte *Verhältnis* von den Methoden der Wirtschaftsleitung und der Wirtschaftskonzeption auf die Beine zu stellen. Der neue Wirtschaftsmechanismus ist aber — und das darf nicht übersehen werden — *nur einer* der notwendigen Schritte in dieser Richtung. Wird die Wahl der wirtschaftspolitischen Konzeption auch des weiteren den eingebürgerten Planungsmethoden unterworfen, so können die »Kinderkrankheiten« unserer Wirtschaft nicht überwunden werden; ja wir laufen Gefahr, dass sie sich trotz dem neuen Wirtschaftsmechanismus weiter verschärfen.

Meiner Erfahrung nach ist eine derartige »Anpassung« der Konzeption an die Planungsmethoden — trotz aller anfänglich gefassten guten Vorsätze — bei der gegenwärtigen Ausarbeitung des langfristigen Planes unverkennbar vor sich gegangen. Wieder steht nicht das im Vordergrund, was für die weitere Entwicklung ausschlaggebend wäre, sondern bloss das, was sich *am leichtesten planen lässt.*

Ich bestreite also keineswegs, dass eine Konzeption, die vor allem quantitative Ziele stellt und quantitative Verschiebungen der Makrostruktur anstrebt, *leichter* von einem Plan erfasst werden kann, als eine Konzeption, die die notwendigen, zum Grossteil mikroökonomischen qualitativen Veränderungen in den Mittelpunkt stellt. Aber dieser Unterschied in der »Planbarkeit« hat absolut nichts damit zu tun, *welche* der beiden Konzeptionen die richtige ist.

Würde die Konzeption der Überwindung des quasi-entwickelten Zustandes angenommen werden — ich halte dies leider nicht für wahrscheinlich,

da hierzu die Macht der Gewohnheit überwunden werden müsste —, so wäre es sicherlich eine langwierige, nur mit der Ausarbeitung des neuen Wirtschaftsmechanismus vergleichbare Aufgabe, die Wege zur Verwirklichung dieser Konzeption zu finden, sowie einen dieser Konzeption entsprechenden langfristigen Plan auszuarbeiten. Ich halte es nicht für ausgeschlossen, dass diese Konzeption im langfristigen Plan nicht explizite festgelegt werden kann, sondern dass der Plan diese Konzeption *nur* insoweit implizite enthält, dass er ihr *nicht widerspricht.*

Ganz abgesehen davon, dass der langfristige Plan unter den gegebenen Umständen bloss ein Lehrstück zu werden droht, um in einigen Jahren abermals unsere mangelnde Fähigkeit der Voraussicht zu dokumentieren, hat — meiner Ansicht nach — die Überwindung des quasi-entwickelten Zustandes weittragendere Bedeutung als der jetzt auszuarbeitende langfristige Plan selbst.

* * *

Die Ausarbeitung der zur Verwirklichung dieser Konzeption angemessenen Methoden der Planung und Leitung, um hierdurch den gegenwärtigen, quasi-entwickelten Zustand Ungarns zu überwinden, ist eine Aufgabe, deren Lösung nicht nur für unsere eigenen Entwicklungsperspektiven, sondern auch für die Anziehungskraft des Sozialismus — sowohl ausserhalb wie innerhalb des sozialistischen Lagers — von ausschlaggebender Bedeutung ist. Die erfolgreiche Überwindung des quasi-entwickelten Zustandes hängt auf folgende Weise mit der Stärke bzw. Schwäche dieser Anziehungskraft zusammen.

a) Die Anziehungskraft des Sozialismus vermindert sich — bei einem gegebenen Unterschied im Entwicklungsstand — durch die eigenartige Deformation unserer Wirtschaft, die darin zum Ausdruck kommt, dass alles nur beinahe funktioniert, beinahe stimmt, beinahe gemeistert wurde. Man denke an all das, was Woche für Woche die Spalten der Witzblätter füllt und was Jahr für Jahr bei der Berechnung des Nationaleinkommens bzw. des Lebensstandards ausser acht gelassen wird. Alles Zeichen der quasi-entwickelten Struktur und nicht des niedrigen Entwicklungsstandes.

b) Die wirtschaftliche Entwicklung der Sowjetunion und die einer Reihe von Volksdemokratien hat zur Genüge bewiesen, dass die Planwirtschaft — auch in ihrer bisherigen, überzentralisierten Form — für die rasche Industrialisierung eines Landes *geeignet* ist. Diese Aufgabe wurde gelöst: besser oder schlechter, je nachdem, in welchem Masse die objektiven Voraussetzungen für eine forcierte Industrialisierung gegeben waren.

Jetzt muss eine *neue Aufgabe* gelöst werden — wie schnell und gut diese gelöst wird, ist für die Anziehungskraft des Sozialismus von ausschlaggebender Bedeutung —, nämlich die wirtschaftliche Weiterentwicklung eines bereits industrialisierten sozialistischen Landes. Es darf nicht übersehen werden,

dass es für die erfolgreiche Lösung dieser Aufgabe bisher noch kein positives Beispiel gibt.

In Ungarn ist die neue Aufgabe, die intensive Weiterentwicklung eines bereits industrialisierten Landes nur nach (oder in Verbindung mit) der Überwindung des quasi-entwickelten Zustandes möglich.

c) Die Arbeit selbst soll in der Übergangsperiode, d. h. im Laufe des Sozialismus — nach einer der wesentlichsten Thesen von Marx — zu einem menschlichen Bedürfnis werden; die menschenwürdige Arbeit ist ein Teil des menschenwürdigen Lebens. Das ist eines der wesentlichsten Ziele des Sozialismus. Nun sind wir aber von diesem Weg abgekommen, denn die zwangsläufig schlechte und vom Arbeiter selbst als *schlecht* erkannte Arbeit ist die *unmenschlichste Arbeit.* Arbeiter nennen sogar die objektiv schmutzigste Arbeit, wenn sie gut und vollkommen durchgeführt wird, eine »saubere« Arbeit. Zum Bedürfnis *kann* nur »saubere« Arbeit werden; eben diese wird durch die forcierten quantitativen Zielsetzungen, die auf Kosten der Qualität erreicht werden, verhindert.

Ein Zustand, in dem sich Arbeiter (Arbeiter, vom Hilfsarbeiter bis zum Oberingenieur) ihrer Arbeit insgeheim schämen, oder diese sogar offen ausgesprochen schmähen, statt auf sie stolz sein zu können, untergräbt alle Voraussetzungen zu einer sozialistischen Gestaltung des Menschen. Die Überwindung des quasi-entwickelten Zustands ist also *keine rein ökonomische Frage.* Im Gegenteil, der quasi-entwickelte Zustand ist entstanden, weil die wesentlichsten Ziele des Sozialismus rein ökonomischen — und sogar ökonomisch genommen oft trügerischen — Zielen untergeordnet wurden.

ПРОИСХОЖДЕНИЕ СЕГОДНЯШНИХ ПРОТИВОРЕЧИЙ НАШЕГО ХОЗЯЙСТВА И ПУТИ ИХ УСТРАНЕНИЯ

Ф. ЯНОШИ

В поисках причин трудностей в экономическом развитии Венгрии автор раскрывает, что в экономической структуре страны наблюдаются характерные внутренние противоречия: в то время, как пропорции между народнохозяйственными отраслями отвечают структуре высокоразвитых в промышленном отношении стран, внутри отдельных отраслей, в микроструктуре, а в особенности в уровне технической развитости отдельных производств проявляются бессомненные признаки отсталости. В статье многосторонне показывается, посредством каких взаимозависимостей между различными факторами становится это настоящее положение, называемое автором «квази-развитой» структурой, *тормозом* дальнейшего развития. Такое «квази-развитое» состояние может быть прекращено лишь путем разработки и последовательного осуществления сугубо новой, фундаментально отличающейся от прежней концепции экономической политики. Это требуется потому, что «квази-развитое» состояние сложилось в результате прежней концепции экономической политики — *усиленной индустриализации.*

(Под выражением «усиленная индустриализация» автор понимает такое крайне быстрое экстенсивное расширение промышленности, темпу которого практически не может следовать изменение профессиональной структуры рабочей силы, то есть: которое — вследствие недостаточного и позднего освоения новой техники — в силу объективной необходимости приводит к ухудшению качества.)

Плановое хозяйство несомненно предоставляет большую свободу по сравнению с рыночным хозяйством, стесненным более тесными ограничениями посредством строгой

реализации требований рентабельности. Политику *усиленной индустриализации позволяла* проводить эта новая, более широкая сфера действий. Однако предоставляемая плановым хозяйством большая свобода только *позволяет идти* прежде закрытыми путями, не указывая какой из них является действительно благоприятным и эффективным. В статье автор, сопоставляя различные исторические, географические и экономические условия Советского Союза и Венгрии, выявляет, почему для Советского Союза усиленная индустриализация была реальным и приемлемым путем, и почему у нас, то есть в небольшой, бедной в отношении сырьевых запасов, все более зависящей от внешней торговли стране эта же экономическая политика привела к общеизвестным трудностям. Ибо для успешного осуществления усиленной индустриализации требуется наличие «ценностного источника» вне промышленности, способного устойчиво покрывать *переходные убытки*, возникающие в силу постоянных преобразований структуры, происходящих существенно быстрее, чем этого требует равновесие; вытекающего из этого ухудшения качества, понижения экспортной способности и т. п. В Венгрии — в противоположность Советскому Союзу — такого ценностного источника не имеется; именно потому и привела «усиленная индустриализация» к охарактеризованным в статье, воспроизводящим самих себя противоречиям.

Установлению «квази-развитого» состояния способствовали в частности и некоторые характерные явления, сопровождающие усиленную индустриализацию. В их числе автор упоминает о почти одновременной смене лиц на всех уровнях хозяйственного управления, то есть о том нарушении непрерывности, которое стало препятствием постепенного перенятия, освоения навыков руководства и принятия хозяйственных решений. С аналогичной значимостью перечисляются фетишизация численно измеряемых и контролируемых производственных результатов; игнорирование требований по отношению к качеству и рентабельности, а также уже многократно раскритикованный волюнтаризм, превративший посредством отрицаний объективных трудностей — часто формальное — выполнение плановых директив в самоцель. Автор выявляет, каким образом передается влияние прежних ошибок еще и сегодня, когда большинство этих вредных явлений уже по праву рассматривается нами как ошибки прошлого периода.

Путь устранения настоящего «квази-развитого» состояния может быть найден только в том случае, если в качестве исходного момента к перспективному планированию — по ходу глубочайшей анализирующей работы с привлечением широкого круга специалистов — будет разработана отличающаяся от прежних концепция экономической политики, способная удовлетворить требования нового характера, вытекающие из интенсивного этапа развития. Устранение »квази-развитого» состояния и тормозящих наше экономическое развитие внутренних противоречий не последует автоматически по мере осуществления нового механизма. Даже наилучший экономический механизм может лишь способствовать выполнению реальной, разработанной на основании одновременного взвешивания возможностей и продуманных целеустановок, конкретизированной в соответствии с настоящими и будущими отечественными отношениями *концепции экономической политики*, но ни в коем случае не может заменять ее.

Устранение настоящих трудностей нашего развития уже и потому является нашей обязательной задачей, что без этого под угрозу ставится подлинная цель социализма: достойная человека жизнь и ее наиболее существенная предпосылка — *достойный человека труд*, то есть тот решающий фактор, от которого зависит, располагает ли социализм той притягательной силой, которую мы по праву ожидаем от него.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 379—402 (1969)

I. Benet — I. Berend

RELATIVE CAPITAL INTENSITY OF FOOD PRODUCTION AND INDUSTRY

The authors investigate with the aid of input-output analysis the relative capital intensities of food production and industry in general. They conclude that, if total capital input indicators are used, no essential difference can be found between the two fields, but prospective trends are uncertain.

Food production and, particularly, the problems related to the development of agriculture have come recently into the focus of economic interest. This is also one of the central problems of long-term planning for the years 1971—1985 which is now in course.

From among the almost inexhaustible range of subjects relating to food production and the development of agriculture, we wish to deal in this article only with a single one in detail, namely, with the capital intensity of production. We are doing so in spite of our knowledge of the fact that when ranking the development projects of various industries no fundamental importance is attributed to the indicators of capital intensity. As a matter of fact, capital intensity must not be considered a decisive criterion of the extent to which an industry should be developed during the period of 15 years. By changing prices, state preferences and credit conditions, capital intensity may be modified within certain limits.

1. Method of investigation, contents of the indicators applied and limitations of the analysis

When speaking of industry, we mean both the extracting and the processing industries. In an earlier period of historical development agricultural production embraced the total of food production. In accordance with the present degree of development of productive forces, the tendency is clearly observable that agricultural units in various countries secure an ever diminishing part of their means of production from own production, nor do they produce themselves the major part of the energy used and are less and less engaged in processing their own produce. In the course of historical development agriculture becomes more and more a branch producing raw material for the food industry and it is the related processing industries which turn out an ever wider range of food-stuffs. The role of the food industry in creating and expanding the market for agriculture is steadily increasing but so is, at the same time,

also its dependence on the development of agriculture which supplies its raw materials.

The signs of this process are clearly seen also in Hungary. To illustrate the increasingly raw-material producing character of agriculture, suffice it to point out that while in 1959 60 per cent of total agricultural output was absorbed by productive consumption, by 1965 this has reached 65 per cent. And if we follow with attention the further course of this set of products, we will find that in 1959 36 per cent of the agricultural products found its way to the food industry for processing, whereas in 1965 50 per cent was already processed there. Data relating to the Western-European countries with more developed productive forces indicate that the importance of processing activity will further increase. It follows that the development of agriculture in this country must be accompanied by a growth of capacity in the food industry. Since it is a basic requirement of drawing up any plan that the development of raw material producing and processing industries should be harmonized on the national economic level, it also follows that *in long-term planning it is expedient to examine agriculture together with its processing industries as food production or food economy.* In the analysis of capital intensity we have applied this method of investigation. In our case we believe this was indispensable also because we found a close correlation between the output pattern by products and the size of the capital intensity indicators. As a matter of fact, it is a general characteristic that the raw material producing industries show a capital intensity above the average and the processing industries one considerably below the average. *Therefore, if we wish to analyse the relation between the capital intensity of the development of food production on the one hand and of that of industry on the other, also agriculture has to be examined together with its processing industry.* (In the following we are going to use the terms food producing bloc and industrial bloc, where the building industry is included in the latter and the food industry, obviously, is in the food producing bloc.)

In the comparative analysis of capital intensity we use three kinds of indicators. These are — in brief — the following:

a) *Indicator of direct capital intensity*

This indicator is generally used and its acceptance needs no justification. It relates to the concluding phase of production and indicates the capital intensity of the last phase. Its formula is:

$$c_d = \frac{\text{Average annual stock of fixed and circulating assets, Ft}}{\text{gross production value, Ft}}$$

b) *Indicator of cumulated capital intensity*

This indicator relates to Ft 100 of final output (end product). Here not only the direct engagement of assets is considered but the secondary, tertiary, . . . etc. engagements incorporated in the inputs of domestically produced materials. The importance of this indicator for the food producing bloc may be summed up as follows. The output of the bloc depends to a great and growing extent on the quantity and quality of means of production supplied by the other sectors to agriculture and this has a great effect also on food processing. It is, therefore, highly important to coordinate vertically the production of the industries supplying agriculture and the food industry and to account also for the indirect capital requirements of development. The indicator is calculated as follows:

$$c_c = c_d(I - A)^{-1}$$

where c_c is the cumulated capital requirement and

$(I - A)^{-1}$ is the so-called inverse matrix, the matrix of total input coefficients.

Column by column analysis of the elements of this matrix will show — fully taking into account also the cumulations — the value of products made available by the productive sectors in the rows of the input-output table to the sector in question to enable the latter to release a unit value of product for final use.

c) *Indicator of total capital intensity*

The contents of this indicator differs from the cumulated indicator in that it is related to Ft 100 of national income[1] and that also the fixed and circulating asset requirements embodied in amortization and imported materials are taken into account. The capital intensity of the use of imported materials is based on the consideration that in exchange for imports we have to export. In this calculation, therefore, the fixed and circulating assets engaged in the production of exports of an identical volume with the imports in question, are calculated by countries. The capital intensity of amortization costs is calculated in an analogous manner: the engagement of assets for investments of the same order of magnitude as amortization costs is taken into account. The importance of this indicator lies in the fact that with its aid the fixed and working capital requirements of development can be assessed on the national level in a way that brings up nearest to reality.

Finally, as regards the limitations of the analytical work, the following must be said. The data published in this article are based mainly on the publi-

[1] In the sense of Net Material Product in UN terminology. — Ed. note.

cation of the Hungarian Central Statistical Office: "A magyar népgazdaság ágazati kapcsolati mérlegei 1964—1966" (Input-output tables of the Hungarian economy for 1964—1966). In evaluating the results, it must be borne in mind that the tables have been compiled for each year at 1966 prices and in a breakdown by only 16 sectors. It was for this reason, among others, that we have made use also of another C.S.O. publication: A magyar népgazdaság ágazati kapcsolatainak mérlege 1965. (Input-output table of the Hungarian economy for 1965.), where the data relating to the national economy are presented in a breakdown by 28 and 83 sectors.

Attention must be drawn also to the fact that in working out the indicators of specific capital intensity we had to face also three insolvable problems, insolvable at least for us. One was the problem of the economic valuation of natural resources (e.g. land, mineral deposits, etc.). Since this problem has not been solved as yet, we had to renounce on taking them into consideration either in the industrial or in the food producing blocs. The other insolvable problem was constituted by the fact that the extent of cumulation is certainly different in the gross production values of the food producing and the industrial blocs. This follows partly from the different degrees of the division of labour and partly from differences in the methodology of computing gross production values in agriculture and in industry. This factor must not be neglected when evaluating the data published. Thirdly, we must mention that the food producing bloc comprises also forestry. This means that the capital intensity of agricultural production is distorted by the fact that against the value of the stand of live wood amounting to Ft 17.6 billion there is a production value of merely 2.9 billion. This unduly increases the capital intensity of agricultural production.

2. Capital intensity of food production and industry

a) *Direct capital intensity*

As a first step, it seems expedient to confront the direct capital input requirements of raw material production and processing in both the food producing and the industrial sectors.

Direct capital input requirement of Ft 100 of gross output

Years	Food producing bloc		Industrial bloc	
	Raw material production	Processing	Raw material production	Processing
1964	177.6	60.4	170.9	70.8
1965	185.5	62.4	187.4	72.3
1966	175.6	62.0	181.6	69.5

Comparing the average capital intensity of the branches having the same function in the two blocs, it is immediately apparent that in the *middle of the 'sixties the capital intensity data for the food producing bloc were generally lower than the corresponding ones for the industrial bloc.* The only exception was 1964 when the capital intensity of agricultural production exceeded that of the extracting industrial branches. But in 1965 — in spite of the fact that that year was most unfavourable for agriculture — the situation became reversed even in this respect. Let us, however, consider now the capital intensity of the total food producing bloc as compared to that of the industrial bloc.

	Capital input requirement of Ft 100 of output		Industry = 100
	Food producing bloc	Industrial bloc	
1964			
Fixed asset requirement	85.2	74.7	114.1
Circulating asset requirement*	45.1	20.9	216.0
Together	130.3	95.6	136.3
1965			
Fixed asset requirement	89.2	79.6	112.0
Circulating asset requirement*	44.5	21.2	236.0
Together	133.7	100.8	132.6
1966			
Fixed asset requirement	85.7	76.6	111.9
Circulating asset requirement*	43.6	19.9	220.0
Together	129.3	96.5	133.9

*Estimated

Thus, the examination of the blocs shows that in the mid-sixties the fixed asset requirements of food production were 12—14 per cent higher and its working asset requirements 100 per cent higher than those of the industrial bloc. *Fixed and working capital combined, the corresponding figure is 33—36 per cent.* This picture emerges as a result of the fact that the combined levels of fixed- and working-capital intensity remain — in both agriculture and the food industry — below the averages of the extracting and processing industrial branches.

It is justified to raise the question: what is the explanation for the relatively higher capital intensity of food production? It will be necessary to refer to several factors.

i: the most important fact is, beyond doubt, that *the interrelations between the processing and the raw material producing branches are highly different in the two blocs.* Thus, while in 1964 within the food producing bloc the output of food industry amounted only to 70 per cent of agricultural production, in the industrial bloc the output of the processing industries was 200 per cent higher than that of the extracting ones. Thus, in industry the degree of raw-material processing is high, *while in food industry the cumulation of costs is low.* More than 78 per cent of the gross production value in food industry is made up by costs of material character. (In the four most important branches of the food industry, milling, the meat industry, the sugar industry and canning the corresponding percentage for the average of the years 1963–1965 was 86, 85, 67 and 70, respectively.) The differences in the relationship between the raw material producing and the processing industries in the two blocs can be explained to a considerable extent by natural and technological characteristics but other factors also play a certain role.

Differences in the pattern of output have also a significance. According to 1964 figures, the extracting industries released 31 per cent of their total production for final use, while the same figure for agriculture was 39 per cent. As regards, however, the part of gross output used for productive consumption, in the case of both raw material producing branches about 90 per cent is used within the bloc. But it is a substantial difference *that in industry almost two thirds of the materials used within the bloc are going to the processing industry, whereas in the agricultural bloc only 45 per cent.* This fact is basically connected with the relatively high degree of self-sufficiency in agriculture. Nor can the fact be neglected that in the industrial bloc — owing to the nature of the reproduction process — the connection between the production of the processing industries on the one hand, and the extracting industries on the other, may be looser. As a matter of fact, it is possible that natural raw materials should be substituted by synthetical ones and even driven into the background by the latter. Suffice it to mention a single case to illustrate the increasing role of man-made materials in Hungary. Between 1959 and 1964 the materials supplied by the chemical industry to the light industry almost doubled and the chemical material content of a unit of light industrial output increased at the same time by 27 per cent.

ii: Foreign trade plays a great role in the lower capital intensity of the industrial bloc. If we consider the import share in the material consumption of individual branches, it will become clear that in Hungary the industrial bloc has to rely much more on imported raw materials than the food producing bloc.

The fact that the processing industries rely to such a great and even increasing extent on imported raw materials indicates not only that the *favourable relationship between raw material producing and processing in the industrial*

Branches	Share of imported materials in total material consumption per cent		
	1964	1965	1966
Industrial bloc	20.6	20.8	19.9
Of which:			
Mining	9.3	11.2	10.7
Electric energy	3.9	3.3	4.1
Metallurgy	32.8	25.7	26.7
Engineering	18.9	21.7	21.3
Building material industry	21.2	14.9	15.3
Chemical industry and rubber processing	29.8	39.3	34.9
Light industry	22.1	25.1	24.0
Building industry	7.2	8.4	7.9
Food processing bloc	9.2	8.6	8.6
Of which:			
Food industry	11.6	8.6	9.5
Agriculture	6.6	8.6	7.8

bloc — as compared to the food producing bloc — is a feature following from production technology but also that *Hungarian foreign trade has an important task in securing this relationship.*

The high import intensity makes to appear, also in another respect, the capital intensity of industrial production lower than it really is. The data shown above demonstrate the great role of imported materials in the gross production of the industries. *But the imported materials, once entering the domestic production process, increase the value of output without direct engagement of assets.* All this draws attention to the necessity of accounting in some way also for imports when calculating the specific capital intensity of the various branches.

iii: Natural, biological and climatic factors exert a hardly negligible influence on the development of food production. The processes are to a considerable extent determined by natural laws. Owing to the latter, the reproduction cycle in agriculture is relatively long, there is little opportunity to accelerate it — although there are such cases too — and this is one of the biggest obstacles to raising production. Slow turnover renders the circulating capital requirement of agricultural production particularly high in the relative terms (See graph).

It can be clearly seen that the fixed-asset requirements of the raw material producing branches exceed the national average. As regards the circulat-

ing assets, this statement holds only for agriculture but not for the extracting industries. When the combined fixed and circulating asset requirements of agriculture and the extracting industries were confronted, no essential differences could be observed. On the basis of the graph it may be pointed out that this is the consequence of the contradictory character of the fixed and circulating capital intensities in agricultural production. As a matter of fact, the *fixed asset requirements of the extracting industries substantially exceed those of agriculture, while their circulating capital requirements are only a fraction of those in agriculture.*

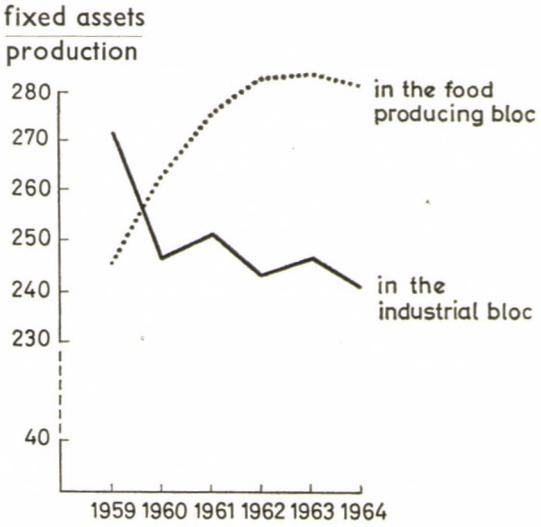


Fig. 1

For the mid-sixties it may be established that — owing to the relative length of the reproduction cycle — the circulating asset requirements of agriculture are about three times as high as the combined requirements of all extracting industries. The great role of the natural factors affects capital intensity in food production also in another respect. The output of individual agricultural products may show fluctuations of a magnitude of even 50 to 100 per cent from one year to the next, thus "sensitively" affecting the utilization of fixed assets not only in agriculture but also in the processing industries. Indeed, even cases where production is more or less corresponding to plan, owing to the varying quality of products and differences in useful content, there may arise problems in the harmonization of certain cross-sections of the food producing equipments.[2]

[2] The effect of changes in qualitative characteristics on the individual cross-sections and on the total capacity of the production line is analysed in detail and in a novel manner by G. Gerő: Gyártási keresztmetszetek gazdaságos arányának meghatározása (Determination of economically efficient ratios between production cross-sections) — Élelmezési Ipar. 1966. No. 8. pp. 240—245.

It is another characteristic feature of the production cycle that production and labour processes are separated from each other and, therefore, utilization of agricultural fixed assets shows seasonal fluctuations. But, owing to the particular features of agriculture, this affects the utilization of assets also in the food industry. In the majority of branches of the food industry, production expressly shows seasonal fluctuations. It must be even reckoned with that the peak season in some processing industries (e.g. canning, sugar production) will coincide with that in agriculture and cause problems in the field of labour management. Seasonality can, however, be observed not only in production but — partly following from the former — also in consumption (e.g. the consumption of beer, canned and quick-frozen goods etc.). There are fluctuations even in daily food purchases. E.g. on week-ends the demand for milk, bread or meat may be even 50 to 60 per cent higher than on workdays. Seasonality and the daily fluctuations raise special problems in respect of capacity utilization in the food producing bloc and have in themselves an unfavourable effect on fixed asset requirements.

iv: In the last twenty years of economic development in Hungary the share of the food producing bloc in productive investments remained well below its *actual* contribution to national income. Although agriculture was allocated in the sixties more investment funds than planned, part of them served only to replace the means of small-scale production that had dropped out as a consequence of the socialist reorganization of agriculture. The supply of most large-scale farms with the means of production is still below the desired level. It must not be forgotten that, due to the replacement requirements between 1959—1966 the growth of the stock of fixed assets in agriculture was slower than the national average, in spite of the fact that investments reached a higher level than planned. The *fact that the share of agriculture in total fixed assets fell from 24.1 per cent in 1959 to 19.0 per cent by 1966 also illustrates this point.*

But in the food industry too, the growth of fixed assets was slower than in industry as a whole. Between 1955 and 1965, the increase in fixed assets was 9.6 per cent in the heavy industry, 7.8 per cent in the light industry, *but only 4 per cent in the food industry on annual average, i.e. less than half of the industrial average.* However, up to 1955 the food industry had been allocated but extremely low investment funds, due partly to reasons of economic policy, partly to the fact that after the war its productive capacity exceeded the raw material producing capacity of agriculture.

Owing to the low investment volume, the age composition of fixed assets in the food industry is highly unfavourable in comparison to the branches of the industrial bloc. As against the heavy and the light industries where in 1965 37 and 31 per cent, respectively, of fixed assets originated from the investments of the preceding five years, *in the food industry only 18 per cent*

of the stock were younger than five years. The obsolescence of the stock of fixed assets in the food industry is indicated also by the fact that the net value of a gross stock of Ft 19.94 billion was only 13.94 billion.[3] Considering the stock of assets as grouped according to material and technical composition, it becomes manifest that machinery and equipment in the food industry are more obsolete than the average. Here the net value is only 54 per cent of the gross one.

Examined by industries, the oldest equipment may be found in the sugar and the wine industries where the above ratio is 43 and 56 per cent, respectively.

It is characteristic of the fixed assets in agriculture that a considerable part of the buildings on state farms and cooperatives are old, unsuited to modern technologies, built in the wrong place, of low capacity and their technical parameters (internal temperature, vapour content, ventilation etc.) are inadequate for up-to-date animal husbandry. One of the reasons is that they could as yet not be fully replaced; another one is that at the time when reorganization was taking place there was still no sufficient experience in the application of modern technologies.

Actually, at the time of the reorganization the main task was to replace the fixed assets. This is well illustrated by the following table.

The agricultural cooperatives are carrying on production on 12.336 plots, of which only 6064 correspond to the requirements of large-scale farming and may be developed also in the future. Thus, on more than 6000 geographical sites there are buildings which do not correspond to the technological requirements and their location is not suited for development either. (According to some estimates, more than one third of the buildings can be thus classed.) These 6000 farms cannot be considered as bases of large-scale production, since

Gross value of fixed assets in agriculture

(January, 1959 prices, billions of Ft)

Social sectors	1958.	1959.	1960.	1961.	1965.
State-owned sector	32.3	34.7	37.8	39.2	54.2
Cooperative sector	5.6	11.0	21.2	34.9	52.5
Individual farms	33.6	28.6	16.6	4.5	2.5
All farms*	74.0	77.2	78.6	81.9	113.3
Increment of fixed assets		3.2	1.4	3.4	31.4
Investments		5.8	7.7	6.1	35.8

* Inclusive of auxiliary farms and household plots.

[3] Élelmiszeripari adattár (Food-industrial Data) Budapest. 1967. p. 67. (Publication of the Central Statistical Office.)

79 per cent have no link with the highway, 27 per cent lack electricity, 56 per cent have no running water, and 98 per cent no internal roads as of 31st Dec. 1966.)

It is characteristic of the stock of buildings that e.g. 31.7 per cent of the accommodation for cows was built before 1948, 7.3 per cent between 1949 and 1958 and 62 per cent since then. As regards stalls for young cattle, the corresponding percentages are 19, 2.8 and 78.2, respectively. In the latter category, 58.5 per cent of the accommodation was built between 1959 and 1962 and it is well known that in those years, as a transitory solution, simple rig timber structures were built, with a lifetime of only about 10 years and thus they will be physically worn out by 1970. The same holds also for the accommodation for pigs. Only 25 per cent of the dropping boxes and 20.1 per cent of the fattening sties were built since 1962, with 65 per cent and 62.3 per cent, respectively, built between 1959 and 1962 in similar simple structures as those for cattle.

Thus, a great part of our buildings was built long ago, a considerable part — about 10—12 000 buildings — between 1959—1962 with a provisional character; their replacement will be one of the main tasks of the fourth five-year plan.

Another problem is that the buildings are of relatively small capacity. In animal husbandry, as is known, the stalls with 100 and 200 accommodations are the basic minimum units of large-scale farming. But only 27.9 per cent of the accommodation for cows can be considered as such. The corresponding figures for stalls for young cattle and calves are 27.2 and 24.6 per cent respectively. In pig raising only 2.3 per cent of the dropping boxes have over 60 accommodations and only in 8.9 per cent of the fattening sties have over 300 accommodations. Maybe it is only the nesthouses and the baby chicken houses where capacity is suited for large-scale production. This refers, naturally, only to those built in the past 2—3 years.

The problem of technical supply is similar. From among the 382 relatively up-to-date specialized cattle raising farms only 222 have both electricity and water and 47 of them have none. In 223 farms there is no technological equipment and only about 20—25 per cent of them have automatic fountains. There are only six farms with fully mechanized technology (automatic fountain, mechanized feeding, milking, treatment of manure).

An analysis of cattle raising in 130 state farms showed that on 4.7 per cent of them internal transportation is performed by ox-carts, on 54.7 per cent by horse-carts, on 4.3 per cent with tractors and on 31.6 per cent of the farms by tractors and animal draft combined.

We do not intend to give here an exhaustive list of the technological characteristics of large-scale farms, but we believe the above are really typical examples.

b) *Cumulated capital intensity of the food producing and the industrial blocs*

The investment consequences of the processes necessarily taking place "after" agriculture could be *mostly*[4] revealed by examining the food producing bloc. However, we still have to describe the indirect input requirements necessary for the development of the food producing bloc.

These indirect capital input requirements present themselves mainly in the industries turning out the means of production for agriculture and in foreign trade. Never before has Hungarian agriculture required and expected the raising of capacity in these industries and the increase of imports of this character to such an extent, as now. *The processes taking place "before" agriculture (mechanization, fertilizers, chemicals)* — together with farm organization and the introduction of new species — *decisively determine the development of agricultural production.* But the industrial means of production have an important effect also on the technology of food processing.

The direct and indirect capital input requirements of the two blocs are comprised in the following table — disregarding now foreign trade.

Comparing these with the data on direct requirements it may be seen to what extent the indirect engagement of assets increases the capital intensity of development. As a matter of fact, *it is characteristic of both the industrial and the food producing blocs that the extent of indirect engagement exceeds the direct capital input requirement per unit of output.* In 1966, e.g., the direct requirements Ft 100 of output were Ft 97 and Ft 129, respectively, while the indirect ones were Ft 119 and Ft 153.

If the indirect capital requirements of the two blocs are compared, one conspicuous thing is that the development of the agricultural bloc had to rely even in the mid-sixties more on the industrial bloc than conversely. Presumably this must be so in any economy with modern means of production, since the task of Department A in industry is to supply the whole of the economy with modern technology. As regards Hungary, the fact also plays a role that — owing to the pattern and the level of agricultural production — in 1965 the agricultural raw material content of Ft 100 of light industrial output was only Ft 3.30. This amounts in other words, to saying that only 2—4 per cent of the output of plant production or animal husbandry reaches the light industry.

Another feature worth attention which distinguishes the two blocs may be traced back to the different relative weights of the processing and raw-material producing branches. Since the indirect fixed asset requirements of the

[4] Only mostly and not entirely, because we have left trading activity "outside" the bloc.

Cumulated (direct + indirect) capital input requirements of Ft 100 final output, Forints

	Food producing bloc	Industrial bloc	Industry = 100
1964			
Cumulated fixed capital requirement	187.3	170.7	109.7
Cumulated circulating capital requirement	91.0	47.7	191.0
Combined	278.3	218.4	127.5
1965			
Cumulated fixed capital requirement	211.0	176.2	119.8
Cumulated circulating capital requirement	91.3	45.9	199.2
Combined	302.3	222.1	136.2
1966			
Cumulated fixed capital requirement	196.1	173.3	113.2
Cumulated circulating capital requirement	86.1	43.1	199.9
Combined	282.2	216.4	130.4

processing branches are relatively great in comparison to the raw material producing ones, and their share is greater in the industrial bloc, the *indirect fixed asset requirements are relatively somewhat greater in the industrial bloc — in comparison to the direct requirements — than in the food producing one.* Therefore, the difference between the capital intensity of developing the two blocs is on national level hardly smaller (30 per cent) than it appeared on the basis of the direct coefficients (35 per cent).

The capital intensity analysis presented here has, however, a serious deficiency. Therefore, the cumulated indicators of asset requirements can be considered only as first approximations of capital intensity on national level. Actually, the "capital contents" of foreign trade — that is, of imported materials — and of investments conforming to the extent of wear and tear necessary to maintain the level of production have not yet been accounted for. These two deficiencies must be eliminated in order to arrive at the so-called total capital intensity indicators, thus comprising direct and indirect capital input requirements as well as the capital contents of imports and amortization, which, according to our present knowledge, indicate most realistically the capital requirements of raising production.[5]

[5] As regards the methods of calculating the so-called total input indicators to be derived from the input-output table, see Éva Balsay: Népgazdasági szintű ráfordítások meghatározása (Determination of national-level inputs) Statisztikai Szemle. 1965. No. 11. pp. 1115—1125.

c) *Total capital intensity of industry and food production*

Year	Total capital input necessary to generate Ft 100 of national income from		Industry = 100
	Food producing bloc	Industrial bloc	
1964	336.5	335.0	100.5
1965	380.9	318.9	109.2
1966	357.2	338.6	105.5

The picture here considerably differs from the previous ones in several respects. In 1966 the total capital intensity of generating Ft 100 national income was 339 Ft in the industrial bloc and 357 Ft in the food producing bloc, which is, respectively, Ft 242 and Ft 228 higher than indicated by the direct indicators of capital input requirement.

The most important conclusion to be derived from the table is that, *on a national level*, if calculated by total indicators, *in the mid-sixties there was no essential difference between the capital intensity of food production and that of industry. This statement is the more true as the data were calculated at current 1966 prices, a fact that acts towards making capital intensity to appear higher in the food producing bloc and lower, i.e. more favourable, in the industrial bloc than in the case of a more realistic price system or in that of the actual 1968 one.*

The question arises now, how can we explain this *approximatively* identical capital intensity of the two fundamental blocs of the economy in the mid-sixties?

One answer to the question has already been touched upon when dealing with the direct capital input requirements. This is the problem of differing export requirements in the two blocs.

If the "capital contents" of the imported means of production are accounted for — on the basis of the average asset engagement of exports given in exchange — it is quite understandable that the *asset requirements of the industrial bloc are rising much quicker than those of the food producing bloc which relies mostly on domestic raw materials.* This statement is true for the whole period under investigation since — partly because of the scarcity of raw materials — Hungarian foreign trade offered more help to industry than to the food producing branches in supplying it with modern means of production.

The other reason is that the investments necessary to maintain the level of production are also different in the two sectors. They are lower in the food

Industry	Cumulated import content of Ft 100 final output		
	1964	1965	1966
Industrial bloc	20.7	20.7	20.5
Of which:			
Mining	9.5	9.5	9.4
Electric energy	9.6	9.3	8.9
Metallurgy	37.3	30.5	30.4
Engineering	24.9	25.5	25.1
Building material industry	19.7	16.3	15.5
Chemical industry and rubber processing	30.6	29.9	27.6
Light industry	19.8	21.2	21.1
Construction	13.3	13.4	13.6
Food producing bloc	12.2	12.4	11.4
Of which:			
Food industry	15.5	14.3	13.2
Agriculture	7.7	9.2	8.8

producing bloc, because the material-technical composition of fixed assets is different.

Thus, in the food producing bloc the ratio of immovables with a long lifetime and low amortization rates reached about 52 per cent of the gross value of all fixed assets, that is, their weight is almost 1.5 times as great here as in the industrial bloc. *The high ratio of immovables is a necessity deriving from the natural and technological characteristics of production.* In many branches of the food industry the result of productive activity appears only in a certain — relatively short — period of the year as raw material to be processed or as finished product, a fact that gives rise to substantial storage requirements. In addition, owing to the perishability of products, special storage is needed. The particular importance and role of storage are well illustrated by the data of a 1963 survey. Percentage distribution of buildings by cubic capacity was: 34.9 per cent operative buildings, 42.5 per cent warehouses and 22.6 per cent other buildings.[6]

All that results in a comparatively lower weight of amortization costs in the production value of the food producing bloc in comparison to the industrial one. It follows that consideration of the replacement requirements (on the

[6] László Kis: Az állóeszközök hatékonyabb kihasználásának problémái a magyar élelmiszeriparban (Problems of a more efficient utilization of fixed assets in the Hungarian food industry). Publication of the Research Group for Industrial Economics of the Hungarian Academy of Sciences. p. 8.

Structure of fixed assets in 1965

Branch	Direct fixed capital requirements of Ft 100 output	
	Total, Ft	Of which: immovables, per cent
Plant cultivation	156.5	51.6
Animal husbandry	46.6	51.7
Food industry	42.8	51.8
Food producing bloc	86.7	51.7
Industrial bloc	79.2	36.4
Economy, total	96.8	44.4

basis of the average fixed asset content of output for investment) increases the capital intensity of the industrial bloc to a greater extent than that of the food producing bloc.

3. Dynamic investigation of the capital intensity of food production and of industry

In the interest of a better understanding of the capital intensity of food production and of industry, it appears necessary to analyse also the trends in capital intensity after 1959. A publication of the Central Statistical Office comprises input-output tables of the Hungarian economy from 1959 to 1964. This enables us to investigate the trends in capital intensity over six consecutive years. Though the figures are not directly comparable with those obtained for 1964—66, nor is the period 1959—64 long enough to draw well-founded trend lines, they may still offer some points for the observation of certain tendencies.

To this end we have plotted the direct fixed capital input requirements in the following graph.

As can be seen from the graph, the direct capital input requirements of the industrial and the food producing blocs moved in parallel over the period investigated. *Between 1959 and 1964 the fixed capital requirements of the food producing bloc showed a fluctuating movement and were on the whole stagnating.* This picture radically differs from the one we know and have become used to in connection with agriculture.

What is the explanation of the fact that, in spite of a definitely growing capital intensity of agricultural production, fixed asset requirements of the whole bloc showed no rising tendency over these six years? This tendency may be explained by several factors.

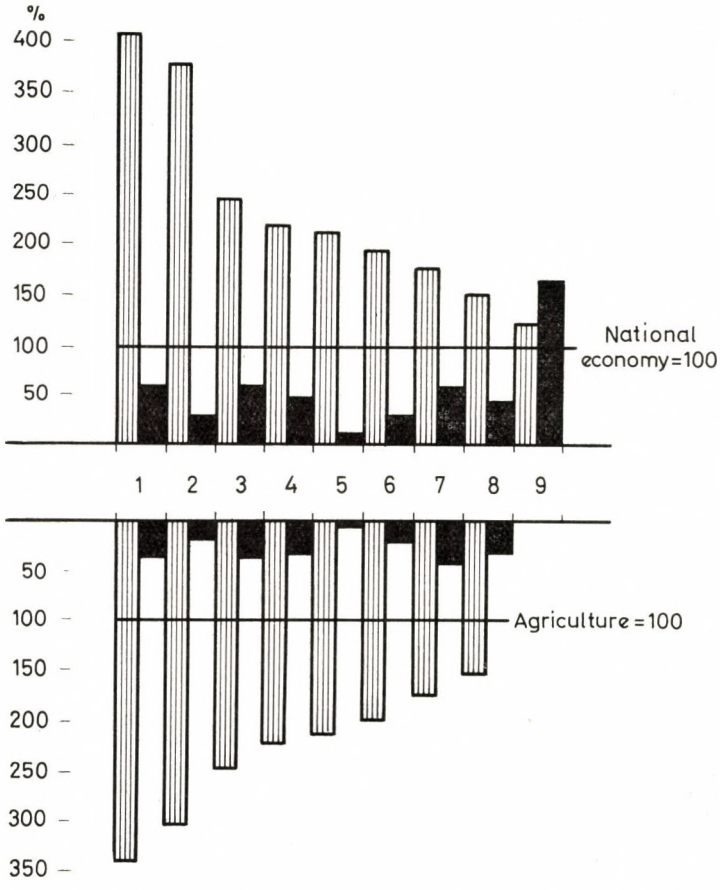


Fig. 2. Direct capital input requirement of Ft 100 production

□ Fixed-capital input requirements ■ Circulating-capital input requirements National economy = 100 Agriculture = 100 1 Bauxite mining 2 Electric energy 3 Other ore mining 4 Lime and cement industry 5 Crude oil and natural gas extr. 6 Coal mining 7 Turf mining 8 Bricks and tile ind. 9 Agriculture

i: It is an important factor to be considered that there was a structural shift within the bloc. While in 1959 the ratio between agriculture and the food industry was — on the basis of gross production value — 100 : 50, by 1964, this turned into 100 : 70. This modification had, of course, a favourable effect on the capital intensity of the bloc since the growing weight of food production with a lower capital intensity diminished the direct investment coefficients of the bloc. (The index number of the shift in proportions is 94 per cent.)

ii: The growth of the capital/output ratio between 1959 and 1962 slowed down from 1963 onward, owing to the fact that the material bases of reorgani-

zation had been quickly laid down and the economic effects of the fixed assets invested began to show. The buildings and small machinery of the individually farming peasants had been scrapped.

iii: Also the diminishing capital intensity of food production played a part. As a matter of fact, the structural change in itself would not have been enough to set off in the bloc the more than 14 per cent increase in the fixed asset requirements of agriculture. It was also necessary that an improvement in the efficiency of fixed assets should come about in food industry, reducing the more than 14 per cent rise to 6.4 per cent on bloc level. (The index number with fixed weights is 106.4 per cent.)

However, the problem arises here, what has caused the reduction in the fixed asset requirements of food production. Without going into details of the problem, we only wish to remark that fixed asset requirements diminished in several industries, resulting between 1960—1965 in an average 12 per cent increase in the efficiency of assets. The greatest improvements may be registered in the sweets, spirits and starch, and milling industries. From the point of view of the total food industry it was the 29 percent reduction of fixed asset requirements in the latter industry which was most important since this is a fundamental branch of food industry. Unfortunately, however, the diminishing capital intensity can even here not be related to the spread of modern technology. The stock of fixed assets in the milling industry is even more obsolete than in the food industry in general. The diminishing capital intensity can be attributed rather to the rapid growth of industrial fodder production. As a matter of fact, *the spread of the latter* has enabled to utilize the buildings and equipment of some still-laid mills, that is, *it secured a growing production value without increasing fixed assets.*

In connection with diminishing capital intensity in food production it should also be pointed out that between 1960 and 1965 the material-technical composition of the stock of assets has also changed. E.g. in 1960 the share of machinery was 38 per cent, in 1965 it approached already 43 per cent. Since it is the fixed capital of machinery character that is directly connected with production, this change may also have played a part.

iv: In addition to what has been already said, also the role of foreign trade should be mentioned. Between 1959 and 1964 the import requirements of both agriculture and food industry have rapidly increased. E.g. in 1959 the direct import content of Ft 100 gross product was Ft 0.8 in agriculture and Ft 4,8 in food industry; by 1964 the corresponding figures rose to Ft 3.3 and Ft 9.2, respectively. Although the absolute figures may be said to be low in comparison to the industrial data, the emphasis is on rapid growth. In the stagnation of the bloc's fixed asset requirements, the imports of means of production, which have raised the gross production value without *direct* engagement of fixed assets, may have actually also played a role.

For a better illustration of the insufficiency of examining *only* the direct fixed asset requirements, let us illustrate graphically the changes in total (national level) capital intensity over the six years in question.

This shows, how true it is that what holds for the level of the industrial branch or of the bloc is not certain to hold for the national economic level. The tendencies asserting themselves on the national level have, in the case of

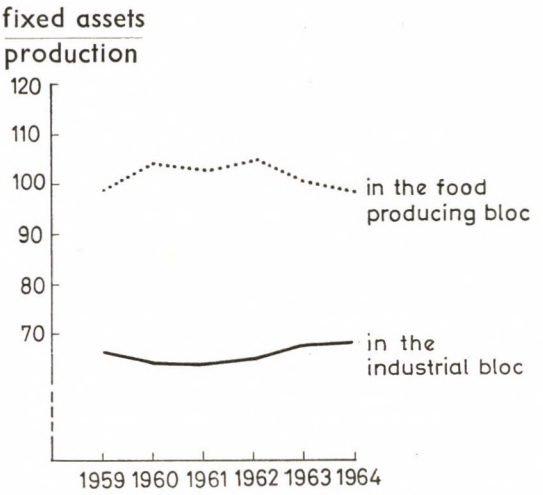


Fig. 3. Total (national level) asset engagement of Ft 100 of national income, Ft

both blocs, almost "nothing to do" with the trends showing the development of direct fixed asset requirements. In the case of the industrial bloc, the reduction against 1959 is, although with fluctuations, unmistakable.

The data in the food producing bloc, on the other hand, show a striking resemblance to a second-degree parabola. The ranking by investment intensity has changed sign between 1959 and 1962 in relation to the two blocs and the food producing bloc slowly moved away from the industrial one. Between 1962 and 1964, however, the two trends have moved parallel to each other.

How to explain this movement of capital intensity which corresponds to a second-degree parabola, since the direct capital intensity showed, on the whole, a horizontal trend line? The answer can be given only in several stages.

The rapid growth between 1959 and 1961 can be explained partly by the fact that it was at that time that large-scale farms became dominant in Hungarian agriculture and, simultaneously, the role of the means of production of industrial origin began to increase rapidly. As a result of this process, indirect investment requirements began to grow. In reality, this growth was quicker than shown by the cumulated capital requirements of agriculture, since many industrial producer goods with agricultural destination had been partly or,

in some cases entirely, supplied by foreign trade. If also the fixed asset content of imports is taken into consideration, it may be said that from 1959 to 1961 agriculture played the main role in raising the capital intensity of the agricultural bloc on the national level.

From 1961 to 1962, however, the capital intensity of agriculture on the national level has hardly increased and, therefore the cause of the steep rise in the whole of the bloc must be looked for in the food industry. Indeed, here the value of the same indicator suddenly increased in the year in question. In this change several factors had a role, but the sudden rise of imports was of decisive importance.

The break of the line, and its decline, between 1962 and 1964 is also a resultant of the complicated interaction of various effects. The break was due to the food industry, in spite of the fact that growing agricultural imports raised the national-level investment intensity of agriculture in 1963 to a higher level as against the preceding year. In the food industry, however, the national-level indicator showed a radical decline. From 1963 to 1964, again, a change of opposite sign occurred in the two branches of the bloc. Imports in the food industry increased and, as a result, the indicator of capital intensity on the national level increased, too. In agriculture, however, both imports and the total capital intensity of production declined. The bloc as a whole, bore the imprint of the latter tendency.

We know that the question will now justly arise, whether the almost parallel movement of direct capital intensity in industry and food production between 1959 and 1964 on the one hand and of the national-level indicators between 1962 and 1964 on the other, did actually continue after 1964.

There is no fully reliable basis to answer this question for the time being. As regards the period up to 1966, it can at any rate be established that no essential change occurred in respect of the relative capital intensity of the food producing and the industrial blocs. Owing to the bad harvest in 1965, the data on asset requirements showed a sudden increase in that year but considerably improved by 1966 owing to an essentially more favourable economic year.

When endeavouring to answer the question, the fact may be taken into account that the capital intensity of agriculture will be considerably influenced by the necessity of replacing the provisory constructions — mostly made of rig timber — between 1970—1975.

According to our calculations, this replacement of rig-timber structures alone will cost nearly 5 billion forints. Its economic effect will, obviously, be low, since the substance of the operation and its purpose is to replace capacities.

In the same period — probably in the early seventies — also the majority of the stock of machinery taken over *en masse* from the machine and tractor stations will have to be replaced. A great wave of machinery purchases could also be observed between 1960 and 1964. Since in 1970—1975 machines

bought 10 years before may have to become replaced, it is worth while to observe that

between 1956—1959 annually less than 4000
between 1960—1964 annually more than 8000
between 1965—1967 again annually less than 6000

tractors were purchased. It follows that the years between 1970 and 1975 will again constitute a "peak load" as regards procurement (replacement) of machinery. The effects of these two negative factors may be outweighed by the results of investment policies in 1965—1970, by the great economic effects of the complete plants and accessory investments which will bring about a reduction in capital intensity.

In the food industry — where the situation is to some extent similar to agriculture — it can be expected that between 1970 and 1975 the replacement of obsolete machinery will be characteristic (in the sugar industry, partly also in the warehousing of grain, and in some minor food-industrial branches). This fact does not promote the further reduction of asset requirements. But it also follows from the above that between 1975 and 1985 the asset requirements of the food producing bloc may be rapidly reduced.

4. Relative magnitude of the asset requirements of agriculture — popular ideas and reality

In Hungarian economic circles it is customary to speak about the conspicuously high capital intensity of agriculture. This is true, of course, in the sense that *agriculture. — similarly to the other extractive branches — is a branch with above average capital intensity.* However, we cannot agree with the tendency that when taking decisions on development projects, this indicator should be attributed an exaggerated importance. Frequently, however, this is not the case. Referring to the data of developed capitalist countries, the high capital requirements are often used as an argument against a quicker development of agriculture. Though in ranking the development decisions the indicator of capital intensity has no fundamental importance, it will be advisable to look into some problems related to the relative capital intensity of agriculture. Our primary aim is to show why the view concerning the relative capital intensity of agriculture has found widespread acceptance in Hungary and what economic problems it contains.

i: A few words must be said about the comparison of capital intensity in agriculture with that of industry. This comparison involves a major problem. Those comparing the capital intensity of agriculture with the average of the industrial branches, overlook the fact that they are comparing things "of

different kinds". They fail to take into account the fact that today agriculture is increasingly a branch confined to producing raw material, and that many things which we were accustomed to in the past no longer belong to its scope of activity. A comparison of the asset requirements of a raw material extracting branch with those of industry is, in principle, problematic since the latter equally comprises processing and raw material producing industries. However, as the processing industries are generally characterized by low capital requirements, while the raw material producing ones show high investment intensity, the comparison can show only a much higher capital intensity of agriculture as against industry. Confrontation of the capital intensity of agriculture with that of the processing industries on the average will pose even graver problems. Here, really economic branches "of a different kind" are compared, and only very limited conclusions can be drawn from such comparisons.

It follows that the spread in Hungary of the belief that agriculture is conspicuously capital intensive is partly connected with the fact that agriculture was examined without its processing industry, the food industry, which is of low capital intensity and that its capital intensity, taken in itself was compared — in a problematic manner — with the average of socialist industry.

ii: However, even apart from the problems of comparison as outlined above, the picture has been distorted. What we are thinking of is the "eyeglasses", the price system. It is a well-known fact that there is a difference between the level of industrial and agricultural prices. The roots of the problem reach back, in the final analysis, to 1946. As a matter of fact, one of the characteristics of the price system introduced at the time of currency stabilization was the widening of the price gap at the expense of agriculture. If we disregard the problems related to the comparison of industry with agriculture and work out for 1964 the direct investment coefficients of both on the basis of a more realistic — say input-proportionate — price system, it will turn out that the capital intensity of agriculture exceeds that of industry only by 31 per cent and not by 103 per cent as indicated by the coefficients calculated at current prices. If, however, we eliminate the problems of comparison and confront industry with agriculture on the basis of a "common denominator", that is, if we examine agriculture together with the food industry, the price problem will cause even greater distortions. The point is that the actual price level of food products is also below the input-proportionate price level. E.g. according to 1968 data the actual price level is 6 per cent lower than the input-proportionate one. This also shows that it was not a premature conclusion to speak about *approximately* identical orders of magnitude when examining the national-level investment requirements of the two blocs. This is the more true as even at uniform multi-channel prices food production would in economic terms not be brought to a common denominator with industry. The fact to be borne in mind is that both agriculture and the food industry were allocated a low share of

investment funds in the past 20 years, their supply with fixed assets is relatively poor and the stock is technically obsolete and antiquated.

In such a situation a uniform rate of rentability established on the basis of assets engaged would put this bloc into an unfavourable starting position and bring it to a "common denominator" with industry only in a formal way.

iii: Beyond the problems of comparability and prices, a distorting effect was brought about also by the fact that the comparison took place on the basis of the branch coefficients only. True, this aspect of investigation is a possible and even necessary way of approach; however, we believe, that it is undeniably insufficient in itself. In an economy with a highly developed division of labour, the assessing — and let us add: the enforcement — of indirect ("consequential") asset requirements is of equal importance with that of direct asset requirements". It is highly important to calculate the "asset requirements" of imported materials as well.

As regards the relative capital intensity of Hungarian industry and agriculture, the third great distortion was introduced precisely by neglecting the effects of foreign trade.

How could this aspect be neglected in an open economy when discussing any economic problem? How can investment requirements be realistically compared if it is left out of account that — owing to our scarce raw material resources — Hungarian industrial production is based on massive imports of raw materials — while food production relies mainly on domestic raw materials?

What is, then, the answer to the question so frequently raised: how many times is the investment intensity of agriculture greater in Hungary than that of industry? The only answer can be that this question is formulated in a way that causes problems from the economic point of view. In drawing up the long-term plan, it is rather the vertical relationships that must be followed up, and the question to be answered is, what is the ratio between capital intensity in industry and in agriculture? In the course of our research work, we have reached the main conclusion that in the mid-sixties the two fundamental blocs of the Hungarian economy were *approximately* of the same capital intensity.

But we should like to stress emphatically that we believe the examination of capital intensity in agriculture taken in itself to be invariably necessary. However, we do not approve of comparing the latter to that of industry as a whole. Of course, the investment requirements of agriculture can be compared to those of the industrial branches but valid conclusions should be drawn only from confrontations with extracting industries having the same function as agriculture. Such comparisons will show that in the sixties the fixed asset requirements of agriculture were somewhat below the average figures of the extracting industries in Hungary.

To the very important question as to the prospective trend of the investment coefficients over the 15-year plan period ahead of us, nothing concrete at this moment can be said. There are so many factors of uncertainty that we would only become entangled in unfounded prophecies if we tried to answer. This question must be answered, together with many others, by further research.

To conclude, the authors owe the reader a self-critical remark. In the article mainly the relative capital intensity of food production and industry has been examined; we have thus not quite adhered to what has been promised in the title. This minor contradiction has been deliberately incurred, since we have felt it necessary to follow at the beginning the now still general way of thinking.

ПРОИЗВОДСТВО ПРОДОВОЛЬСТВЕННЫХ ПРОДУКТОВ И ФОНДОЕМКОСТЬ ПРОМЫШЛЕННОСТИ

И. БЕНЕТ — И. БЕРЕНД

Авторы рассматривают фондоемкость сельскохозяйственного производства в сопоставлении с промышленностью. Однако в интересах действительной сопоставимости, в отличие от прежней практики, сельское хозяйство рассматривается ими не самостоятельно, а — аналогично промышленности — вместе со своей обрабатывающей промышленностью (пищевой промышленностью). Показатели фондоемкости полученного таким образом блока производства продовольственных продуктов сопоставляются ими с промышленными данными.

Фондоемкость трактуется авторами в двух аспектах. *Во-первых:* на основании прямых показателей, выражающих используемые основные и оборотные средства в расчете на единицу продукции. В результате своих исследований авторы пришли к выводу, что в середине 60-ых годов фондоемкость производства продовольственных продуктов в Венгрии была на 33—36% выше, чем в промышленности. *Во-вторых:* на основании т. н. показателей народнохозяйственного уровня, содержащих помимо прямой удельной фондоемкости производства в средствах и т. н. косвенно используемые средства. К последним относятся средства, вложенные в другие народнохозяйственные отрасли, и вложение средства возникающее во внешней торговле в связи с импортом. Основной вывод, полученный авторами на основании этого метода исследования, заключается в том, что фондоемкость производства продовольственных продуктов и промышленного производства на народнохозяйственном уровне по существу аналогична. Это они объясняют, главным образом, тем, что в Венгрии промышленный блок имеет гораздо большую удельную потребность в импорте, чем производство продовольственных продуктов, и, таким образом, вложение косвенно используемых средств в расчете на единицу продукции в промышленности гораздо выше, чем в производстве продовольствия.

В заключение авторы детально излагают почему получили в Венгрии широкое распространение ложные представления об очень высокой фондоемкости сельского хозяйства. *Во-первых:* прежние сопоставления не были последовательными, так как фондоемкость сельского хозяйства сравнивалась с промышленностью в целом. А в последней наряду с фондоемкими добывающими отраслями содержались и обрабатывающие отрасли с благоприятной капиталоемкостью. Поскольку сельское хозяйство представлялось оторванно от пищевой промышленности, имеющей низкую фондоемкость, такое сопоставление и «не могло показать» иного, как исключительно высокой фондоемкости сельского хозяйства. *Во-вторых:* определенную роль сыграло и то обстоятельство, что уровень цен сельскохозяйственных продуктов ниже т. н. уровня цен, пропорциональных затратам, а уровень промышленных цен превышает его. Вследствие этого показатели фондоемкости сельскохозяйственного производства представлялись более высокими, а промышленные показатели — более низкими, чем в действительности. *В-третьих:* в прежних исследованиях не учитывалась фондоемкость импортных материалов, и это — из-за относительно высокой фондоемкости промышленного производства — значительно искажало со тношения фондоемкости промышленного и сельскохозяйственного производств.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 403—415 (1969)

Б. ФАЗЕКАШ—Я. ЭРИ

ОБ УСТАНОВЛЕНИИ ОБЩЕЙ АГРАРНОЙ ПОЛИТИКИ СТРАН-ЧЛЕНОВ СЭВ

В интересах ускорения развития, повышения эффективности своего производства страны-члены СЭВ должны пересмотреть нынешнюю систему сотрудничества, расширить международное разделение труда. Именно в силу этого одной из важнейших экономических задач предстоящего периода становится глубокий, всеобъемлющий, но одновременно и отраслевой анализ принципиальных и практических вопросов *экономической интеграции*. В рамках этого *одна из своеобразных, весьма сложных задач заключается в создании общей (координированной) аграрной политики*. Пытаясь наметить важнейшие вопросы создания общей аграрной политики, мы исходим из того, что экономическая интеграция, поставленная на повестку дня развитием производительных сил, может эффективно осуществиться лишь в том случае, если она — с учетом органических связей, взаимозависимостей — распространится на все важные отрасли экономики.

Создание общей аграрной политики является не только отраслевой задачей, вытекающей из исключительно важного требования более быстрого повышения ныне еще относительно низкого уровня сельскохозяйственного производства посредством использования преимуществ координации, но и очень существенной, органической частью экономической интеграции в целом. Из этого следует, что общая аграрная политика не является самостоятельной частью экономической интеграции, и что возможность достижения результатов в этой области в большой мере зависит от прогресса интеграции в других отраслях. И, наоборот, успешная координация аграрной политики во многих отношениях представляет собой предпосылку должного функционирования механизма сотрудничества в других отраслях. *Содержание общей аграрной политики, таким образом, должно определяться как органическая часть согласованных между собой национальных экономических политик, с учетом взаимосвязей и взаимодействий с другими отраслями.*

Экономическая интеграция и общая аграрная политика

Чем же объясняется все же, что вопрос создания общей аграрной политики рассматривается нами и в отдельности?

Уже на основаниии исторического обзора социально-экономического развития, происходящего в наши дни в отдельных странах и даже в отдельных районах, можно прийти к выводу, что *решение аграрного вопроса*, особенно обостряющегося с ускорением развития, является не только обязательным требованием формирования соответствующей экономической структуры, но и *важной социально-политической задачей*. Решение аграрного вопроса в действительности является интересом всего экономического со-

дружества, но в отдельных странах оно выдвигается с тем большей силой и настоятельностью, чем больший удельный вес имеет сельское хозяйство в народном хозяйстве, и чем большие различия имеются между уровнями развития сельского хозяйства и других народнохозяйственных отраслей, в первую очередь, промышленности.

В предстоящем периоде социально-экономического развития наших стран правильное решение аграрного вопроса представляет собой исключительно важную политическую и экономическую задачу потому, что с быстрым развитием экономики в целом бурно растут и требования, предъявляемые к производству сельскохозяйственных, т. е. пищевых продуктов, и если последнее отстанет от растущих требований, то это задержит социальное, экономическое развитие в целом и его темпы.

Почти невозможно рационально организовать хозяйственную деятельность общества, оптимально использовать производительные силы без координации аграрной политики между странами социалистического содружества — то есть без установления общей аграрной политики — хотя бы потому, что производственная структура отдельных стран в результате автаркического во многих отношениях развития в настоящее время в большинстве случаев в значительной мере отклоняется от оптимальной, причем не только в отношении отдельных основных народнохозяйственных отраслей (например, промышленности и сельского хозяйства), но и относительно отдельных отраслей производства сельскохозяйственных и пищевых продуктов (например, зерновых и картофеля; овощей и фруктов; свинины, говядины, битой птицы и т. п.).

Если же подойти к требованию как можно большего и быстрого развития стран-членов СЭВ с точки зрения положения с рабочей силой, ее рационального использования в отдельных странах, то и в этом случае можно прийти к выводу, что оно в большой мере зависит от того, удастся ли определить, осуществить общую, координированную на многосторонней основе аграрную политику.

Дальнейшие мотивы установления общей аграрной политики вытекают из специфики сельского хозяйства:

— роль объективных условий производства и их различий в отдельных странах в сельском хозяйстве гораздо больше и сравнительно более постоянна (изменить их можно лишь с большими трудностями и в течение более длительного времени), чем в остальных народнохозяйственных отраслях;

— в ходе исторического развития как в социалистических, так и в развитых капиталистических странах сложилась сложная система средств экономического регулирования в области сельского хозяйства.[1]

[1] Характерно для этого, что уровень сельскохозяйственных цен в большинстве случаев не достигает уровня, мотивируемого национальными издержками, вследствие чего сельскому хозяйству предоставляются различные субвенции из бюджета. В рамках

Из этого следует, что и в этом отношении между отдельными странами имеются гораздо большие различия, чем в остальных отраслях, поэтому между ними труднее производить сопоставления, делать правильные, реальные выводы.

Специфические мотивы

Первым шагом осуществления общей аграрной политики несомненно должно быть определение ее *цели, которая не может заключаться в чем-либо ином, как в координированном развитии сельскохозяйственного производства стран-членов СЭВ путем усиленного повышения эффективности, в приближении к мировому уровню и достижении его, с учетом различных, природных, технических, экономических условий стран, их условий в отношении рабочей силы и т. п.*; а также в удовлетворении имеющихся и в перспективе растущих потребностей в сельскохозяйственных продуктах, продовольственных, пищевкусовых товарах.

При определении этих *потребностей* нам необходимо учесть следующее:

Потребность в продовольственных, пищевкусовых товарах значительно увеличивается в результате роста численности населения стран-членов СЭВ и повышения жизненного уровня, сопровождающего экономическое развитие этих стран. Наряду с количественным ростом меняется и характер потребностей. Характерные тенденции потребления продовольственных товаров в социалистических странах аналогичны развитым капиталистическим странам. В общем потреблении сокращается доля потребления хлеба, мучных изделий и картофеля, и повышается удельный вес потребления животных белков, в первую очередь, мяса, сырых и обработанных фруктов и овощей.

Было бы неправильным, если бы цель общей аграрной политики заключалась в установлении региональной автаркии, то есть в полном самообеспечении стран-членов СЭВ всеми продовольственными, пищевкусовыми товарами. Однако правильным, рациональным требованием является то, чтобы снабжение всеми продуктами, условия экономически эффективного удовлетворения потребностей в которых налицо или могут быть созданы в странах-членах СЭВ, *обеспечивалось*, в первую очередь, *за счет собственного производства*. Ибо покрытие значительной части этих потребностей за счет

данной статьи не представляется возможным детализировать и анализировать их, поэтому здесь мы ссылаемся лишь на то обстоятельство, что в формировании системы экономического регулирования сельскохозяйственного производства определяющую роль сыграла применяемая в данной стране экономическая политика, с учетом удельного веса сельского хозяйства в народном хозяйстве в целом; уровня производства и производительности труда в отдельных народнохозяйственных отраслях; политических аспектов системы розничных цен и, вообще, жизненного уровня; а также социально-политических аспектов.

импорта из не состоящих в СЭВ стран ограничило бы возможности ввоза других товаров и препятствовало бы ускорению технического развития в странах-членах СЭВ.

При установлении общей аграрной политики *следует принять во внимание и то исторически сложившееся обстоятельство, что во внешнеторговом обороте ряда стран-членов СЭВ большую роль играет экспорт сельскохозяйственных продуктов, продовольственных, пищевкусовых товаров в капиталистические страны.* Эти страны и в дальнейшем не могут отказаться от экспорта сельскохозяйственных продуктов в капиталистические страны, так как у них нет возможности в противном случае возместить сокращение валютной выручки вывозом других товаров, — главным образом, из-за недостатка в рынках.

Сохранение и развитие экспорта сельскохозяйственных продуктов в капиталистические страны, однако, совпадает и с той общей целью, что *интеграция и в сельском хозяйстве не должна направляться на экономическое обособление,* а параллельно с ней следует укреплять связи как с не участвующими в СЭВ социалистическими, так и с развивающимися и с развитыми капиталистическими странами. Общим целям развития содружества СЭВ отвечает и то, чтобы отдельные страны-участницы способствовали своим экспортом сельскохозяйственных продуктов на капиталистические рынки при выгодных условиях приобретению средств, необходимых для ускорения технического развития.

Потребности, о которых говорилось выше, могут удовлетворяться в странах-членах СЭВ лучше, экономически более эффективно, если страны не будут стремиться к автаркии и будут координировать свою деятельность гораздо эффективнее, чем до сих пор. В сущности именно в этом и заключается обоснованность общей аграрной политики.

Со стороны производства общая аграрная политика должна распространяться на *специализацию части производства.*

Большие резервы можно вскрыть путем координированного развития сельского хозяйства, целесообразной специализации производства по странам, с учетом благоприятных с точки зрения отдельных отраслей сельскохозяйственного производства

— природных условий,
— возможного материально-технического снабжения,
— рабочей силы,

имеющихся в отдельных странах.

Специализированное развитие производства, учитывающее вышеуказанные условия, способно значительно повысить эффективность, так как *отдельные страны смогут концентрировать свою производственную деятельность на продукты, которые могут производиться ими при более благоприятных условиях, считаясь, в первую очередь, с потребностями интегри-*

рованного рынка, а также с необходимым и экономически выгодным экспортом в третьи страны.

В результате *специализации производства*, таким образом, происходит расширение разделения труда внутри сельского хозяйства. Это сопровождается *тем*, что наряду с увеличением аграрного экспорта отдельных стран растет и их импорт определенных сельскохозяйственных продуктов, условия для производства которых в других странах более благоприятны. Вследствие этого в рамках СЭВ сильно возрастет оборот сельскохозяйственных продуктов. В настоящий момент одни страны-члены безусловно *являются* странами-импортерами (ГДР, Чехословакия, Польша, СССР), а другие — странами-экспортерами (Венгрия, Румыния, Болгария). Целесообразно, чтобы в результате координированного развития производства страны-импортеры в будущем еще в большей мере увеличили ввоз продуктов из стран, имеющих более благоприятные производственные условия, повысив одновременно вывоз некоторых сельскохозяйственных продуктов, производимых ими с большей эффективностью. Так например, вполне мыслимо, что при значительном увеличении венгерского аграрного экспорта в ГДР, из ГДР в Венгрию будет постоянно ввозиться картофель.

Целесообразным представляется развитие разделения труда между сельскохозяйственными отраслями отдельных стран и в вертикальном направлении (например, ускорение темпов развития животноводства в отдельных странах на базе ввоза фуража из других стран-членов СЭВ).

Важными элементами общей аграрной политики являются *координация сельскохозяйственных научных исследований, а также единое регулирование защиты растений и зооветеринарных условий.* Под этим следует разумевать не только согласование сельскохозяйственных научных исследований, но и совместное использование, быстрое распространение новых технологических методов, достижений в области важных условий развития производства семян, саженцев, племенного скота отличного качества. При этом следует создать такие условия, чтобы разработавшие новые достижения были должным образом заинтересованы в их совместном использовании и быстром распространении.

Общая аграрная политика, устанавливаемая в интеграционном процессе социалистических стран, — в отличие от национальной аграрной политики — не должна распространяться на все сельскохозяйственные продукты и продовольственные товары, а лишь на их определенный круг, постепенно расширяемый по мере развития в зависимости от общих интересов экспортеров и импортеров.

Общую аграрную политику целесообразно проводить в отношении важнейших с точки зрения питания населения товарных групп, согласуя потребности отдельных стран.

При всех обстоятельствах обосновано включение сюда производств

продовольственного и фуражного зерна — поскольку в этом отношении несомненно имеются все условия для того, чтобы содружество социалистических стран могло путем экономически эффективного разделения труда полностью покрывать свои потребности и располагать запасами, обеспечивающими непрерывное снабжение стран. Решение этого вопроса имеет для стран-членов СЭВ фундаментальное значение уже и потому, что создание стабильной кормовой базы является обязательным условием развития животноводства.

Страны-члены СЭВ — в связи с ростом жизненного уровня, в интересах удовлетворения растущих потребностей в животных белках, в первую очередь, в мясе, а также обеспечения необходимого экспорта — должны быстрыми темпами развивать, главным образом, свое животноводство, *производство мяса и молока*, а также их переработку. Следовательно, общая аграрная политика обязательно должна распространиться на эту область.

Рост жизненного уровня и стремление к установлению более здоровой структуры питания требуют значительного повышения пока еще весьма низкого среднего уровня потребления *сырых и обработанных фруктов и овощей* в странах-членах СЭВ. Между странами-членами СЭВ уже и ныне имеется весьма значительный оборот по этим продуктам, его дальнейшее быстрое увеличение, однако, требует координации производства, обработки и обращения на длительный период, с учетом того, что большей частью речь идет о насаждениях; хранение и консервирование являются капиталоемкими процессами, и отсутствие координирования этой области может причинить особенно большие убытки.

Развитие сельского хозяйства стран-членов СЭВ не мыслимо без соответствующей промышленной базы, без должного материально-технического снабжения. Было бы нерационально, если бы каждая из стран намеревалась снабдить свое сельское хозяйство и, вообще, производство продовольственных продуктов машинами, искусственными удобрениями, средствами защиты растений, специальными строительно-монтажными средствами своего собственного производства. Из-за относительно небольшого объема отечественных потребностей, за исключением Советского Союза, это было бы экономически неэффективным. *Таким образом, предпосылкой, а одновременно и результатом общей аграрной политики является углубление международного разделения труда и в других отраслях народного хозяйства, в особенности, в производстве, обращении и использовании промышленных материалов, средств труда, требующихся для сельскохозяйственного производства и обращения продовольственных, пищевкусовых продуктов.* Из числа стоящих перед нами задач и вместе с тем и имеющихся разнообразных возможностей достаточно сослаться на то обстоятельство, что социалистические страны значительную часть своих потребностей в средствах защиты растений покрывают за счет импорта из капиталистических стран. Было бы обоснован-

ным, чтобы одна из располагающих благоприятными условиями социалистических стран организовала у себя их производство. Учитывая потребности интегрированного социалистического рынка, это было бы рентабельным даже при условии закупки лицензий и оборудования на капиталистическом рынке.

Важным элементом общей аграрной политики в области как экспорта, так и импорта является *совместное выступление на рынках третьих стран и других экономических сообществ.* Это особенно обосновано, если принять во внимание, что на капиталистических рынках отдельные страны-члены СЭВ нередко выступают как конкуренты, ослабляя позиции друг друга.

Сельскохозяйственное производство социалистических стран целесообразно защищать от вредного влияния конкуренции мирового капиталистического рынка посредством торговой политики, проводимой в соответствии с едиными принципами, устанавливаемыми в результате координации.

Для решения этих задач необходим ряд глубоких анализов и международных согласований. Однако уже теперь можно установить, что *к достижению цели следует идти параллельно двумя путями.*

Один из путей — это *координация средне- и долгосрочных наметок стран-членов СЭВ,* с целью обеспечения действительно подходящей исходной основы для внутренней аграрной политики отдельных стран, а другой — это *взаимное и постепенное открывание внутренних рынков сельскохозяйственных продуктов.*

Взаимная выгода

Проведение общей аграрной политики возможно только на основе согласования интересов сельскохозяйственных экспортеров и импортеров, обеспечения им взаимной выгоды.

Уже из всего изложенного выше явствует ряд преимуществ, вытекающих из проведения общей аграрной политики. Взаимные выгоды можно сгруппировать следующим образом.

Как странам-экспортерам, так и импортерам выгодно, если:

— развитие сельского хозяйства отдельных стран будет производиться с учетом общих потребностей содружества СЭВ и местных условий, что позволит в общей мере увеличить общую продукцию стран-членов СЭВ и повысить ее экономическую эффективность;

— положительное влияние усиленной специализации проявится как в странах-экспортерах, так и в странах-импортерах аграрной продукции, ведь специализация и концентрация производства, являющиеся предпосылкой применения наиболее современной техники, способствуют не только количественному росту продукции, но и сокращению производственных издержек и обеспечению однородного хорошего качества;

— общее выступление усилит их позицию на мировом рынке.

Помимо этого, странам-экспортерам выгодно, если:

— рассчитывая на устойчивую возможность помещения продуктов в течение длительного периода на стабильный рынок, они могут развивать такие отрасли сельского хозяйства, в которых они имеют благоприятные производственные условия;

— будут созданы условия, при которых обеспечивается экономическая эффективность экспорта при соответствующей эффективности производства.

Странам-импортерам, далее, выгодно, если:

— в результате развития международного разделения труда они смогут обеспечить продовольственные продукты, необходимые для удовлетворения растущих потребностей населения, при более благоприятных условиях, чем за счет отечественного производства, во многих случаях экономически неэффективного. В связи с этим следует учесть, что *страны-импортеры могут использовать с большей эффективностью имеющиеся в их распоряжении ресурсы развития и рабочую силу в промышленности*, чем в сельском хозяйстве. Следует взвесить и то обстоятельство, что в Западной Европе и в перспективе будет наблюдаться значительный спрос как раз на те основные продовольственные продукты (мясо), потребность в которых наибольшая и в странах-импортерах СЭВ вследствие роста жизненного уровня;

— *в результате проведения общей аграрной политики расширится рынок, возможность размещения в странах-членах СЭВ, экспортирующих им сельскохозяйственные продукты*, прежде всего средств производства, требующихся для развития сельского хозяйства (машин, оборудования, химикатов и т. п.), на мировом рынке которых ожидается особое обострение конкуренции.

Сельскохозяйственные цены

Ключевой вопрос осуществления взаимных выгод в рамках общей аграрной политики несомненно заключается в том, как реализуются они при образовании внешнеторговых цен на сельскохозяйственные продукты. С этой точки зрения наиболее существенной является проблема нынешнего уровня цен, которую следует поэтому рассмотреть подробнее. Не разрешив ее, невозможно проводить общую аграрную политику.

Суть проблемы — это низкий уровень цен в обороте сельскохозяйственных и продовольственных продуктов между странами СЭВ. Это препятствует росту их оборота. Эта проблема коренится, с одной стороны, в принципе ценообразования СЭВ, а, с другой стороны, в реализации этого принципа на практике. Ознакомимся поближе с ролью и влиянием обоих факторов:

а) Согласно принципу ценообразования контрактные цены в обороте между странами-членами СЭВ устанавливаются на базе цен мирового капиталистического рынка.

Однако общеизвестно, что цены сельскохозяйственных продуктов на мировом рынке занижены (диспаритет в отношении цен на промышленные товары) и не достигают уровня, мотивируемого европейскими производственными издержками.

Такое формирование цен мирового рынка является следствием совместного действия ряда факторов. Один из важнейших факторов заключается в том, что оборот продуктов сельского хозяйства и пищевой промышленности в мировой торговле растет гораздо медленнее общего товарооборота. Это объясняется неэластичностью спроса на продовольственные товары т. е. тем, что в развитых капиталистических странах, являющихся главными импортерами этих продуктов, потребление продовольственных продуктов не увеличивается пропорционально росту жизненного уровня, кроме того, эти страны в последние десятилетия усиленно стремятся к покрытию своих потребностей за счет собственного производства. В развивающихся странах же, потенциально представляющих большой рынок для сельскохозяйственных продуктов, рост импорта ограничивается их низким жизненным уровнем и нехваткой инвалюты.

На соотношение цен сельскохозяйственных и промышленных товаров на мировом рынке влияет и то обстоятельство, что степень монополизации сельского хозяйства ниже, чем в промышленности.

И наконец, но не в последнюю очередь, цены мирового рынка не достигают уровня европейских производственных издержек еще и потому, что значительная часть сельскохозяйственных продуктов во внешнеторговом обращении поступает с таких заокеанских, производящих с высокой эффективностью монокультурных территорий, где рабочая сила дешева, или высока степень механизации работ.

В силу всех этих факторов в европейских капиталистических странах внутренние цены основных сельскохозяйственных продуктов выше цен мирового рынка. Наряду с этим экономическая политика аграрного протекционизма применяет различные способы субвенционирования сельского хозяйства.

Так, например, сегодня уже обращение всех важнейших сельскохозяйственных продуктов между странами-участницами ЕЭС производится по ценам, устанавливаемым на основе производственных издержек и значительно превышающим цены мирового рынка. Экспортер, вывозящий сельскохозяйственные продукты за пределы территории ЕЭС, (т. н. внешней экспорт) получает субвенцию. Общеизвестно, что основным источником финансовых фондов, требующихся для поддержания такой системы, являются отчисления из выручки от импорта извне сельскохозяйственных продуктов.

Такое разделение внутренних цен и цен мирового рынка, применение системы субвенционирования экспорта и отчислений от импорта — прежде всего странами «Общего рынка» — в свою очередь оказали давление на цены мирового рынка.

Естественно, что экспорт сельскохозяйственных продуктов, осуществляемый по мировым ценам, реализуемым при вышеуказанных обстоятельствах, или же по устанавливаемым на их основе контрактным ценам, и на рынке СЭВ ставит экспортеров в невыгодное положение, так как субвенционирование экспорта, необходимое из-за высоких внутренних производственных издержек, налагает тяжелое бремя на их народные хозяйства.

б) Дальнейшим минусом для стран-экспортеров является такая реализация принципа ценообразования в рамках СЭВ, что *в то время, как конктные цены на сельскохозяйственные продукты близки к заниженным ценам мирового рынка, цены на промышленные изделия значительно выше цен мирового рынка.* В этом, помимо прочих исторически сложившихся обстоятельств, определенную роль играет и тот факт, что фактические цены мирового рынка на сельскохозяйственные продукты документируются гораздо лучше (значительная часть их котируется на бирже), чем цены на промышленные изделия, ибо в отношении последних предлагаемая цена может значительно изменяться в результате скидок, узнать о которых очень трудно или, вообще, невозможно.

Таким образом, пересмотр системы внешнеторговых цен СЭВ на сельскохозяйственные продукты является актуальным с точки зрения реализации взаимной выгоды и обязательным с точки зрения проведения общей аграрной политики.

В настоящий момент можно прийти к выводу, что *и в рамках СЭВ вопрос увеличения сельскохозяйственной продукции, оборота аграрных продуктов внутри содружества можно решить только посредством установления цен, превышающих мировые цены, то есть системы цен, пропорциональных стоимостям, или же путем проведения согласованной политики совместного субвенционирования.*

При решении проблемы цен и субвенционирования следует учесть, что *сельскохозяйственное производство является по отношению к другим народнохозяйственным отраслям фондоемким*; что интенсивное развитие его требует особенно больших капиталных вложений. Принимая это во внимание, без обеспечения вышеупомянутых условий — то есть, если сельскохозяйственный экспорт останется убыточным, — нельзя ожидать от стран, экспортирующих аграрные продукты, направления имеющихся в их распоряжении ограниченных ресурсов на развитие сельского хозяйства. Наоборот, в таком случае следует ожидать того, что и эти страны обратят свои ресурсы на развитие более рентабельных отраслей своего народного хозяйства. То есть они будут развивать те отрасли промышленности, в которых вложение

материальных ресурсов и занятость рабочей силы принесет больший эффект, что в свою очередь будет противодействовать желательной и в промышленной сфере специализации. Таким образом, отсутствие эффективной общей аграрной политики может воспрепятствовать должному продвижению экономической интеграции и в других областях.

При установлении общей аграрной политики следует считаться — как с фактором, во многих отношениях затрудняющим решение проблемы — с тем обстоятельством, что *между странами-членами СЭВ имеются значительные различия*

— в материально-техническом снабжении сельского хозяйства,

— в уровне развития сельского хозяйства,

— в достигнутом уровне производительности и эффективности.

Все это следует основательно учесть и при создании условий, обеспечивающих взаимную выгоду. В интересах разработки системы сельскохозяйственных внешнеторговых цен СЭВ, отвечающей принципу взаимной выгоды, или же согласованной системы совместного субвенционирования, экономисты заинтересованных стран должны проделать очень основательные исследования и анализы. Эта работа займет, повидимому, немало времени. Что сложится в конце концов в результате этой работы и международных согласований, невозможно заранее предсказать. Учитывая обстоятельства и известные позиции отдельных стран по этому вопросу, очевидно, что при создании условий, выгодных как для экспортеров, так и импортеров, следует принять во внимание производственные издержки сельского хозяйства, уровень субвенционирования производства и экспорта, и все это реализовать при установлении внешнеторговых цен на сельскохозяйственные продукты. В то же время из принципа взаимной выгоды следует, что все это не может означать полного признания во внешнеторговых ценах СЭВ национальных издержек сельскохозяйственного производства, осуществляемого на низком уровне, с плохой эффективностью.

Таким образом, следует ожидать того, что отдельным странам придется и впредь субвенционировать, за счет собственного национального бюджета, сельскохозяйственное производство или экспорт, осуществляемые с эффективностью ниже уровня, признанного на основе конкретных условий стран-членов СЭВ.

В то же время *важный элемент общей аграрной политики заключается в том, что экспортеры за свои продукты будут получать цену, мотивируемую производственными издержками приемлемой эффективности, и будут, таким образом, заинтересованы в развитии производства.*

С улучшением материально-технического снабжения и осуществлением прочих мероприятий в рамках общей аграрной политики можно ожидать постепенного повышения эффективности сельскохозяйственного производства. Поэтому в первое время будет целесообразно обеспечить экспортерам

более высокую выручку, — или субвенционирование сверх внешнеторговых цен, — чем в дальнейшем.

Желательно, чтобы разрыв между внутренними и внешнеторговыми ценами уменьшился и даже исчез, чтобы их изменения оказывали взаимное влияние друг на друга. Лишь таким образом можно обеспечить необходимое согласование интересов экспортеров и импортеров и должное обратное воздействие потребностей на производство. Это требование может быть полностью удовлетворено путем постепенной либерализации рынков. Где для этого еще не созрели условия, и там целесообразно проявлять большую гибкость.

Необходимость постепенности

Из имеющихся в отдельных странах значительных расхождений и из сложности задач аграрной политики следует, что в процессе экономической интеграции установление общей аграрной политики, создание интегрированного рынка сельскохозяйственных продуктов возможно лишь в течение относительно длительного времени и постепенно. (Известно, что и в ЕЭС достижение предусмотренных целей в этой области длилось дольше всего: даже при наличии относительно небольших различий между странами оно потребовало полтора десятилетия.)

Принцип постепенности должен соблюдаться в применяемых методах, а также в том, что вначале международная интеграция, либерализация рынка будет распространяться на меньший круг продуктов, чем в дальнейшем.

Постепенность проявится и в том, что в начальном периоде регулирование этих вопросов между странами будет производиться в большей мере на двусторонней основе, переходя в дальнейшем на многостороннюю основу. В начале будет скорее функционировать народнохозяйственная координация планов развития производства и обращения, и наряду с этим будут постепенно взаимно открываться рынки стран-участниц. Кроме того, либерализация рынков в первое время будет происходить лишь в отдельных, наиболее заинтересованных странах, причем в отношении продуктов, по которым в наибольшей мере сможет реализоваться взаимная выгода.

Возможность и темпы осуществления общей аграрной политики и экономической интеграции вообще зависят от возможных сроков и меры создания условий для должной реализации взаимной выгоды.

ON THE FORMULATION OF A COMMON AGRICULTURAL POLICY FOR CMEA COUNTRIES

B. Fazekas—J. Őri

In order to accelerate economic development and to increase efficiency of production, the CMEA countries have to advance further in their present cooperation and expand the international division of labour. In this framework, it is a particularly complicated task to work out a common, coordinated agricultural policy. The contents of this common agricultural policy must be determined as an organic part of the coordinated national economic policies, with a view to connections with and mutual effects on the other branches of the economy.

In the first part of the article, the authors prove the necessity of a common agricultural policy. They point out that formulation of a common agricultural policy is possible only on the basis of a harmonization between the interests of agricultural exporters and importers, with a view to mutual advantages. These advantages are dealt with in detail. The key problem of a common agricultural policy is, obviously, the extent to which mutual advantages will assert themselves in the formation of agricultural foreign trade prices. At present, mutual trade between CMEA countries in agricultural and food products is being transacted at low prices.

This hinders the expansion of trade in agricultural products. It is a disadvantage to exporters of agricultural products that while the contractual prices of agricultural products are near to the low world-market prices, the prices of finished industrial goods are well above the world-market level.

Thus, in order to ensure mutual advantages, it is a timely and unavoidable requirement to revise the CMEA foreign trade price system of agricultural products. It is an important element of a common agricultural policy that exporters should obtain for their products a price justified by production inputs — with acceptable efficiency — and thus become interested in developing production.

It follows from the considerable differences by countries as well as from the complicated character of the tasks of agricultural policy that the formulation of a common agricultural policy can be realized only over a relatively longer period and only gradually, in the course of the process of economic integration.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 417—422 (1969)

REVIEWS

Z. TATAI

TOOLS OF REGIONAL DEVELOPMENT UNDER THE NEW SYSTEM OF ECONOMIC CONTROL AND MANAGEMENT

The previous issue of this publication contained an article by G. Lázár, entitled: Regional Pattern of the Hungarian Economy — Development and Some Topical Problems, in which the author was dealing with fundamental objectives of regional development, its main principles, and the requirement system of a long-term regional policy. In sequel to the above article, I will give here an outline of the regulators of regional development now in force in industry as well as of their practical effects. It must be borne in mind that only a short time has elapsed since the introduction of the new system of control in industry and that, therefore, the experiences derived from the application of the regulators have only a restricted validity.

The regional regulators are intended to promote the realization of regional objectives. The regional regulators are organic parts of the control system of the economy. They complement the general regulators in so far as they promote realization of the regional goals within the framework of the national economic objectives by means of special measures, and also correct the former whenever their effects are to be mitigated or enhanced in certain respects in some areas of the country as a function of regional goals.

We expect the regional regulators to promote a regrouping between the formation and utilization of development funds according to the regional goals. In working out the regional regulators, the main objective was that, as a result of development, the need for labour should approximate the sources of labour, the growth rate of industrial employment should be slowed down in the capital and its surroundings and industrial development policy should promote intensive industrial growth. In the industrially backward areas, where there is a labour surplus, the rate of industrial development should be accelerated also by means of central subsidies. In these areas — considering the low level of industrialization — extensive industrial development should also be helped for a transitory period. In traditionally industrial areas with a declining output in coal mining, the aim is to bring about an up-to-date pattern of industry and to increase the employment of women.

Central regulation of investment location

Earlier a wide sphere of industrial investment (about 80 per cent) was approved by central organs on the basis of individual evaluation and financed out of the state budget. Under the new system, central approval is needed only for major individual investment projects of nation-wide importance

which affect fundamentally the pattern of industry, since the implementation of long-term regional development policy can be influenced mainly through these. In investment decisions the government also enforces directly the location proposals, the harmonization of sectoral interest and regional goals will give rise to discussion also in the future.

Important industrial investment projects which the enterprises are unable to finance entirely from their own funds, and whose realization is in the interest of the whole economy, can be realized in the form of so-called mixed investments. The development projects brought about in this framework are subsidized by the state with budgetary contributions or with granting credit and other terms more favourable than the general ones. One of the criteria of granting state subsidies may be conformity with the regional goals.

The *investment projects* to which a lump-sum is allocated cover homogeneous tasks serving usually the same development objective or the development of networks (a typical example is the electric grid, or the system of national oil and gas pipelines); they amount to 10—12 per cent of the total industrial investment volume. Their purpose is to ensure the infrastructural background of industry and of production in general, as well as of the supply of the population. In these fields a longer foresight and the securing of uniform national viewpoints is necessary. Therefore, they have remained within the scope of central decision, although part of the costs is covered from sources originating from the enterprises. These lump-sum investments are approved, in a regional breakdown, partly by the government, partly by the competent minister. They play an important role in creating the conditions for industrialization in the industrially backward areas.

The sphere of enterprise investments has increased, particularly in the branches where employment per unit of output is high and the freedom of location is relatively great. This necessitated to work out measures that would orientate enterprise decisions towards realizing the regional goals. The formation of enterprise development funds — from amortization allowance and profits — now reflects the situation of the present industrial areas. It is necessary that regulators should make the enterprises interested in a regional regrouping between the formation and utilization of the development funds, that is, they should ensure that the development funds formed in the industrially developed areas, especially in the capital, should be partly used in the industrially backward areas. To attain this objective, the government has created an industrial development fund.

Industrial development fund

The industrial development fund has its source in the state budget; its utilization is decided upon by the county councils, on the basis of central directives. It may be used for industrial investment projects to be realized in 24 settlements marked out for industrial development. These settlements are situated in industrially backward areas and fulfil a regional organizing function in the areas where there are substantial mobilizable labour reserves. The marking out of a relatively small number of settlements is justified by the concentrated use of the development funds. 20 to 50 per cent of the costs may be covered from the industrial development fund. Experience gained up to

now has shown that with a subsidy of 20 to 30 per cent, enterprise investments can be purposefully directed towards the desired areas.

At present, Ft 200 million are available annually from the industrial development fund. With this sum, investments worth about Ft 800 million can be promoted in the settlements marked out for development.

Between 1968 and 1970, the industrial development fund will help to create an industrial production base employing about 25 to 28 thousand people. This will be realized in 80 to 85 new or substantially expanding plants. In this way it will be possible to realize industrial investment in the settlements marked out to the tune of more than Ft 2 billion, the major part of which will be financed by the enterprises from their own development funds and from bank credits.

Aided by the development fund, investments are realized generally in such industrial branches where the investment requirements are relatively low in comparison to employment (metal mass products, precision engineering, wood processing, clothing industry, etc.). The average increase in employment may be put at 350 to 400 head in each plant. Size and proportion of the subsidy is considerably influenced by the character of the investment (new plant or extension), infrastructural situation of the settlement, character of the activity, financial situation of the enterprise concerned, as well as the size of the development fund made available to county councils. With the help of the investments several obsolete small and medium-size country plants will become up-to-date medium-size ones and also some large-scale plants of national importance will come about.

The most important investments are carried out by the enterprises situated in the capital because of the facilities offered. As a result of these investments, on the one hand, employment may be reduced in the Budapest plants and, on the other hand, the increase in employment — that would otherwise become necessary — will not come about. From the original plants in the capital mainly the production lines not fitting the main line of the enterprise, the production of spare parts and simpler activities requiring much space are moved to the plants in the countryside.

Removal fund

Removal of some plants from the capital has been ordered by government decree. The investment costs arising in connection with the removal are covered out of the development fund formed in the enterprises or out of credits raised with the bank as an andvance on the development fund. In addition, to aid the removals centrally, a development fund has also been created over which the Budapest City Council has the right of disposal.

For the years 1968 to 1970 a removal fund amounting to Ft 250 million is available. On the basis of a contract signed between the Budapest City Council and the enterprises concerned, 40—45 smaller or greater plants with a total employment of about 10 000 will be moving from the capital to the countryside. The capacity of the plants abolished in the capital will be made up for partly by expanding plants in the countryside and partly by building new ones. The removals take place mainly in the industries of metal mass-products, wood processing and furniture, and clothing. The investments connected with these removals will be carried out mainly in industrially backward areas and

they will also help to transform the industrial pattern in the former coal mining regions.

The removal of individual plants does not mean that — apart from some specialists — also the workers are moving to the countryside. The majority of labour released due to removals find employment in the remaining plants of Budapest, a fact that acts towards easing the scarcity of labour in the capital.

Industrial development realized in the countryside with the aid of removals and the development fund have reduced the demand for labour in Budapest by about 20 000 in all, i.e. about 3 per cent of total industrial employment here. A settlement of industrial workers in this order of magnitude — since there is no free labour in Budapest — would involve urban development costs of about 5—6 billion Forints. The government's support of removals and development in the countryside amounts to only 15 per cent of that sum.

Credit policy

Central regulation of credit conditions is also intended to promote a better regional development of industry. In the Directives for Credit Policy approved by the government, 60 settlements were marked out for industrial promotion in industrially backward areas. In these, the repayment term of long-term credits is 8 years instead of the general 6-year term and the rate of interest 6 per cent instead of 7 per cent.

In the credit practice of the past year these prescriptions of the Directives concerning regional goals could be enforced only to a limited extent. The reason is the tension that made itself felt in the investment market. The demand for credits substantially exceeded the crediting possibilities. Therefore, only the firms offering the most favourable repayment conditions could be accomodated. Knowing the great demand and the limited credit available, the enterprises were deterred beforehand from asking for long terms for fear of risking refusal.

Under the new conditions, enterprises in the Capital were in a more favourable position as regards possibilities of credit-raising than those in the country. This follows partly from their higher level of production and partly from their better information possibilities. More than half of the investment credits granted were for development projects in the Capital.

These phenomena show that also the practical enforcement of the credit conditions must be followed with attention. The new Directives for Credit Policy issued for 1969 ensure more consistently the enforcement of regional targets. Long-term credits can be obtained in the Capital only for priority projects.

Other regulators affecting regional development

The *communal tax* amounts to 1 to 2 per cent of the wage bill, depending on the type of industry. It is levied by the local councils and paid from the enterprise development fund. The tax, introduced in 1968, constitutes the local source for the council's development fund. The Executive Committee of the Council may reduce the rate and even grant exemption for a definite period, if it is considered that this will promote the industrial location targets.

The councils rarely avail themselves of this latter possibility. The reason is that the supply with public utilities is most neglected in the industrially backward areas and this is a hindrance also to industrial development. It is precisely industrial development which requires a greater development fund and the councils would cut their own development resources if they renounced part of it in favour of the enterprises.

Payment of compensation for the use of *state-owned sites* was introduced last year. The high degree of differentiation in charges for the use of land may provide a definite tool for location policy, especially as regards the siting of industrial and commercial enterprises with great space requirements. The charge acts towards giving preference to the suburban as against the downtown areas.

The goal that the *costs of commuting* should be borne by the employers has not yet been realized consistently. Transitorily, the enterprises may retain the costs arising on this account from the payments into the budget. Although the original aim, namely, that these costs should be met by the enterprises, has not been attained, the enterprises have to show in their books these costs separately and the refunding from the budget is transitory. The result has been that the enterprises are watching and evaluating this cost factor. At times, they make efforts to secure labour from the neighbourhood of the site. Should this cost factor be made an actual one instead of merely one of accounting, then the major countryside settlements with local labour surplus may obtain a considerable potential advantage in respect of location.

In the next years, in order to accelerate industrial development and to promote the location of new industrial plants, some settlements of the industrially most backward areas of the country will be fully supplied with public utilities from central funds. In the areas marked out for industrial estates the site will be arranged according to uniform plans; traffic routes, public utilities and energy network will be built out. The area thus prepared will be given free of charge to the enterprises carrying out industrial investment projects.

Summary evaluation

Earlier the bulk of investment funds was centrally allocated. Thus, also the regional distribution of development funds was taking place centrally. In principle, this made it possible that regional goals should be directly enforced. The theoretical possibility, however, asserted itself in practice only in a restricted and contradictory manner. The competent ministries were always short of material resources as compared to their tasks. Both the organs of control and the enterprises had to achieve first of all the quantitative and qualitative objectives of production. Therefore, they made efforts to realize development with the least possible input. But what means the lowest cost in the enterprise is not always coincident with the costs arising on the national level or with the regional goals. Since, however, also the regional goals had to be attained with the means available to the branch in question, these goals were generally neglected. Under the new conditions of economic control the enforcement of regional goals is served also by means which are separated from those available for the development of various industries, above all by the industrial development and the removal funds mentioned above. These are small sums in comparison to total industrial investments — representing but about one per cent

of the latter — yet they secure substantial means for the assertion of regional goals, they help to influence the regional distribution of about 20 to 30 per cent of the increasing demand for labour. Above all the location of labour-intensive and less capital-intensive industries can be channelled into the desired areas. In general, these industries are also less bound by the existing natural and other conditions, their freedom of location is relatively great. The minor investments supported from central funds change the regional distribution of industry and — beyond attracting to the areas marked out three to fourfold of the amounts allocated from the budget — they also provide a foundation for further industrial development. The plants coming about will give rise to further development based on the enterprises' own accumulation and will in several cases attract also substantial outside investment funds to the area.

The elaboration of a system promoting proportional regional development of industry and its implementation have been followed with close attention both by industrial enterprises and regional (administrative) bodies.

Lively interest in countryside development has manifested itself particularly on the part of light-industrial enterprises in the capital whose own development funds are comparatively low and which are suffering from labour shortage.

The councils concerned are ready to participate in the work of organization and they could secure the purposeful utilization even of substantially greater amounts than the industrial development funds available. Cooperation of the councils in industrialization is not confined to organizing utilization of the industrial development fund. They also endeavour to put at the disposal of investors sites for the new plants supplied with public utilities or such where these can be introduced under favourable conditions. They also take upon themselves the responsibility of training skilled workers, and provide the new plants with housing facilities for key specialists.

Willingness of the county councils to promote industrial development becomes manifest also in that they are ready to cede even the plants under their own control to the large-scale industrial enterprises controlled by the ministries in cases where this results in an accelerated rate of development. Further, they willingly cooperate in the earliest possible realization of industrial projects by making available the services of their own designing, investment and construction organizations.

The regional regulators introduced in the framework of the new system of economic control and management at the beginning of last year are being continuously corrected and refined in the light of experiences gained in practical work.

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 423—433 (1969)

BOOK REVIEWS

BRÓDY, A.: *Érték és újratermelés — Kísérlet a marxi értékelmélet és újratermelési elmélet matematikai modelljének megfogalmazására.* (Value and reproduction process — An attempt at working out a mathematical model of the Marxian theory of value and reproduction.) Budapest, 1969. Közgazdasági és Jogi Könyvkiadó. 358 p.

Bródy's new book* is an impressive work, indeed. Dealing on a high level with one of the central problems of economics, the theory of value and prices, it greatly impresses the reader with its depth of thought, with the logical clarity of many of its parts, the refined and aptly handled mathematical apparatus employed, and with the author's numerous remarkable ideas.

For years now, Bródy has been engaged in research work concerning input-output analysis. He was the first to advance the use of Leontief models in Hungary. But — although this would have been a useful activity in itself — he would never rest satisfied with simply planting foreign experiences into Hungarian soil. From the beginning, his efforts centered on further developing the input-output technique. He was among the first to examine the problem of the accuracy of input-output tables. In addition, he has been interested for years in the possibilities of a theoretical application of this technique. In his new book, this activity reaches the point of culmination.

One of the greatest assets of the book is its originality. It follows an untrodden path, avoiding the easily acceptable but tedious truths. It represents a special trend in Hungarian economic literature, being a political-economic and a mathematical-economic work at the same time.

Beside the author's great capacity for abstraction, also his versatile knowledge becomes manifest from the book. Well versed both in Marxian and non-Marxian literature, he is also acquainted with the questions of current economic policies. An interesting component of his erudition is his knowledge of natural sciences and technology which not infrequently inspires his economic ideas. Another important virtue is the book's clear and logical style which makes it easy to follow the exposition. The similes are apt, the wording colourful and elegant.

In this review I shall deal with four subjects in detail. On the one hand, I will review Bródy's statements, adding some of my thoughts inspired by the book. On the other hand, I would contest some of the author's ideas.

1. The relationship between static and dynamic models

Basically, Bródy operates with two types of models. One is the closed, static Leontief-model; this describes the internal

* English edition under preparation *Ed. note*

flow of current inputs only. The other is a closed dynamic model which is related to the dynamic models of Neumann, Leontief and Lange, describing not only the current inputs but also the tying up of assets. When constructing the latter model, Bródy is performing an important clarification of concepts, illustrating with fine distinctions the relationship between the tying up of capital, its recovery, and the lifetime of fixed assets.

It is one of the profound and remarkable ideas of Bródy to point out a relationship existing between the pair of static and dynamic models on the one hand and the category pairs of simple and extended reproduction, as well as value and production price in the Marxian ideological framework on the other.

At first reading, the relationship and analogy seem to be close. The most well-rounded, logically closed and complete chapters of the book are precisely those describing the two kinds of model and examining their analogies with the Marxian theory of value and reproduction. The book makes a great step forward, excelling the earlier attempts of such creative economists as Oscar Lange, N'emtchinow, Johansen and Morishima.

The frequent (though not absolutely necessary) signs of the high standards of a scientific theory are simplicity, conciseness and symmetry. As J. von Neumann put it: scientific theory too, has its aesthetics. This part of Bródy's work is really *fine;* it gives the pleasure to the reader of the clear rhythm and the roundness of ideas.

Let me, however, sincerely confess: on the basis of many a bad experience, I have developed a prejudice against every beautiful — I may say seductive — train of thought. The rounder and the more beautiful the exposition, the more doubtful I am inclined to grow. This doubt induced me to read the text over and over again and, finally, it seemed to me that in Bródy's train of thought there may be found some debatable points.

First of all, we should reflect on the relationship between the static and the dynamic models. The traditional interpretations of Marx have always emphasized that the theory of value precedes the theory of production price not merely on the basis of considerations of economic history or didactics but also because the theory of value is the general theoretical basis of political economy. Accordingly, Volume I of Capital must lay down the general theory while Volume II, and particularly Volume III the special theory. Bródy does not challenge this, but as soon as he begins to work with the formalized model, he proves, as a matter of fact, the opposite. *The dynamic model of Bródy is the general model and the static model is only a special case of the former.*

As long as we do not operate with exact definitions, the relation of the general to the special cannot be unequivocally decided. One of the advantages of formalization is that it can be unequivocally established whether some model is a special case of another, more general one or not. This is obviously the case when the parameters characteristic of the model are lying in the general case between wider, in the special case, however, between narrower limits. With Bródy, that is exactly the point. In his dynamic model the coefficients of matrix B are non-negative, in his static model, however, they are strictly zero. In his dynamic model, the greatest eigenvalue of the matrix of current inputs can be greater than, equal to, or smaller than unity, while in the static model it must be exactly equal to unity. The static model can thus be a representative of an era preceding the historical era formalized with the aid of the dynamic model. It may be a skilful didactic trick to begin the explanation with the simpler static model. But the static model and the theory of value built upon it cannot be considered as the general theoretical foundation of the theorem of reproduction described by Bródy.

2. The role of labour

A further essential problem is the role of labour in the model. Following the traditions of the closed Neumann—Leontief models, Bródy builds a labour sector (or, maybe, several labour sectors) into the model. In the scope of current inputs, the input of labour is consumption and its output is work.

Bródy characterizes the input coefficients of the labour sector with constant coefficients fixed for a given matrix, just as he does in the case of the chemical industry or the textile industry sectors. Undoubtedly, this approach is not alien to the ideas of the English classics or Marx. Accordingly, labour, too, is a commodity whose value is determined the inputs socially necessary for its output. Bródy follows here consciously the Marxian line; but both Marxian and non-Marxian historians of the theory have justly pointed out that, as a matter of fact, when constructing his closed model, even Neumann proceeded unconsciously as a Marxist when handling the labour sector in the above manner.

However, whereas Bródy's models actually aptly formalize the above indicated idea of the labour theory of value (i.e. that labour, too, is a commodity having inputs), the special character, the specific role of the labour commodity becomes lost in the same formalism. According to Marxian theory, though labour is a commodity, it is not a common commodity but one essentially different from all others. As opposed to that, in the Neumann—Leontief—Bródy closed models it becomes a simple commodity, one of many sectors.

Accordingly, the price-svstem derived from the Bródy models — be it the "value-proportionate" prices derived from the static model, or the "production prices" derived from the dynamic one — are, in the final analysis, not related to a single specific row or column of the matrix — the sector of labour — but are deduced from the whole of the matrices, simultaneously from all of their elements.

One of the most witty and most original ideas of Bródy, new and creative in mathematical economics, is that the value-proportionate price-system may be obtained as the positive eigenvector belonging to the greatest eigenvalue of the input coefficient matrix. However, in this line of reasoning any specific importance of the labour sector has completely disappeared; it has become simply one of the matrix' rows or columns.

The problem is obviously sensed also by the author. He, therefore, argues in favour of the distinguished role of labour in the following way: the interconnection between the individual parts of the economy is based on the fact that each of them avails itself of labour. In other words, in the row of labour all elements are positive and this ensures that the matrix should not be reducible. This argumentation does not seem to be convincing. If we work with a highly aggregated model, then the other rows will not contain any zeros either. E.g., although all sectors use electric energy, no general theory of value and prices can be built upon this fact.

If, however, we use a disaggregated model, it will be justified to disaggregate also the labour sector, e.g. by trades. In this case, there will suddenly appear zero coefficients in several special labour rows.

As mentioned above, attempts at constructing mathematical models based on certain concepts of Marxian political economy have been made already before Bródy and independently of his activities. Some believed to approach the labour problem of value theory by setting as the objective function the minimization of live labour, distinguishing this input category from all other inputs in the model's constraint system. However, I must confess that none of these attempts seems more convincing than Bródy's venture.

The treatment of the role of labour seems to raise problems not only from the value-theory side but also from that of

reproduction. It is precisely here, when speaking about economic development, that it becomes obvious that the basic constraint of growth is set by the number of those capable and willing to participate in production as well as by their diligence, qualification, skill and working capacity. However, the closed models of Bródy are unable to express this constraint: the labour sector may expand unimpededly, at the same rate as do the other simple sectors.

Anyhow, it must be stated that no one has hitherto succeeded in constructing a logical and consistent mathematical theoretical model that would, at the same time, reflect Marx's ideas and conjectures in all respects, and within that the specific role of labour in the economic process. Bródy's work constitutes an important step forward, a bold intellectual venture to solve the problem — but the task can, even hereafter, not be considered as having really been carried out.

3. Duality

The most thought-provoking subject in Bródy's book is that of duality. I do not know whether it is possible to give an entirely general definition of the notion of duality. From the debates on this question which have taken place in this country, some confusion of ideas seems to have emerged. As for me, I would rest satisfied now with a looser circumscription. In mathematical economics we would speak of duality if there exists a characteristic symmetry between a pair of mathematical problems. A set of data can be arranged in two ways and from them there can be formulated two kinds of equation systems. There are definite interrelations between the two kinds of equation systems based on the same set of data.

Bródy surveys and systematizes the duality properties of the models he is dealing with. Some of these are well known. We know that the Neumann model simultaneously yields output levels and a growth rate on the one hand and shadow prices and a rate of interest on the other. We know that from the Leontief-model we may derive output levels and price systems. It is also known that for a considerable part of programming problems there exists a primal as well as a dual solution yielding, respectively, output levels and shadow price systems.

Bródy complements the known duality relations with hitherto unknown ones. Giving an economic interpretation to the eigenvectors and eigenvalues of the matrices, he arrives with their aid at valuation systems or, if you like, price systems conforming to the input-output matrices. As I have stressed earlier, it is in this that in his book constitutes a novel, important and original contribution to mathematical economics.

In a remarkable and thought-provoking manner, Bródy points out that there is a relationship between the pair of notions of use value and value in the labour theory of value on the one hand, and between the duality relations of the mathematical-economic equation systems on the other. Earlier critics of the study have pointed out that Bródy perhaps exaggerates the *plus* that Marx added in this field to the theories of his forerunners, Smith and Ricardo. It is also possible that he somewhat overemphasizes the priority of Marx in discovering duality in the stricter sense. He overemphasizes this because — as I have mentioned — in the minds of most economists the notion of duality is definitely related to the symmetry properties of *mathematical* equation systems. It would be more convincing to speak, instead of priority, of an intellectual precursorship, and instead of an identity between the pair of notions use value — value and the modern duality theses, merely of an intellectual relationship or an analogy. These are, however, only nuances of formulation, and Bródy has a tendency towards overexposing his ideas. As regards the substance, Bródy has con-

vinced at least me that there exists a strong analogy and that the intellectual relationship is a close one.

Let me, however, immediately add this: it was exactly when reading Bródy that it became clear to me that the well-known duality theorems can never become the backbone of the formal models of a price theory truly reflecting reality. I am aware that with this statement I will immediately find myself opposed to a broad current of thought from Bródy to Khantorovich, from Neumann to Arrow and Debreu. Nevertheless, I would like to expound the substance of my counter-arguments, illustrated precisely on hand of Bródy's models.

The primal models of Bródy contain exclusively *structural* equations. Definite outputs require definite inputs. Let me disregard now the question whether the equations of Bródy reflect the structural relationships in question truly or not. Obviously, they reflect them neither quite truly nor quite wrongly. The closed character of the model, the complete abstraction from external limits, scarcities, initial states, means certainly a strong restriction also from the point of view of price theory, from that of orientation in rational economic decisions. But let me disregard now this property of the Bródy models since it is not essential from the point of view of my further argumentation. I may as well safely start from the assumption that Bródy's equations can be accepted as an approximation of the economy's structural model. Even in that case it can be stated that they cannot undertake anything else but to describe the interrelations of *real* processes, of production, investment, turnover, consumption, utilization.

As a first approximation we may say: these are representations of technical and natural interrelations. It may, of course, be objected that they are not "chemically pure" technical relations; in the final analysis, it is human beings that will decide on the choice of the actually applied technology. In addition, the input coefficients of the labour sector in the Bródy model reflect also consumption habits, living conditions and the cultural level of the population.

It is, however, certain that Bródy's equation system does not make any efforts at describing the characteristic behavioural regularities of economic decision-makers, of the persons, individuals, groups, collectives, strata or classes active in the economy. There are no institutions in the model. It does not illustrate the interests of the individuals, the conflicts between people with different interests nor the solutions of these conflicts. It does not describe the reactions of those active in the economy to the impulses received, nor their answers to the information received. It does not illustrate the information flow of the economy. In short, it does not contain any so-called behavioural equations. This is exclusively a model of the real sphere of the economy, and not that of the control and information sphere of the economy, of the economic mechanism.

Any real price system is, however, only one part, one component of the control and information system consisting of many parts and components. We will not be able to tell whether a price system is "good" or "bad" or optimum, whether it provides correct orientation for and promotes the rational behaviour of those active in the economy and the efficiency of the process, if we tear it out from its surroundings, from the entirety of the control system. But it is just this what Bródy's duality theorems — similarly to those of Neumann or Kuhn-Tucker — really do.

It is my belief that there really exists a deeper, more comprehensively interpretable duality in the economy. A definite system of the real processes can be regulated, controlled and operated only by mechanisms, by information and control systems that are conforming to them. The price system is only one but not an exclusive component of the latter. We

hope that our discipline will soon be able to analyse this deeper and more comprehensive duality also with the aid of formal models. Further research will perhaps show whether the dualities mentioned above may be called dualities in some stricter mathematical sense. For the time being, however, there are as yet no such models known.

It seems to me that Bródy is making here a step backward from Marx, although he wishes to model Marx's theory. One of Marx's merits in the history of economic theory is that he introduced a sociological approach into economics. He emphasized that his political economy deals not only with the productive forces but also with production relations, with human relations. As opposed to that, a Neumann-model or a Leontief-model is a de-sociologized, de-humanized model. It is exclusively a model of productive forces — and as such it can be well used — but not of production relations. The price system, however, connects individuals with each other, acts on them, influences their decisions and thus its effects cannot be analysed without models of human behaviour.

It is my convinction that the Bródy models, similarly to those of his predecessors — Neumann, Leontief, Khantorovich and others — will have a considerable role *not* in founding the price theory, but in analysing the real processes of the economy.

4. The model and the work of planning

Thus we have arrived to the fourth controversial problem: what is the role of the Bródy models in planning. The view has by now become sufficiently widely accepted — at least by the most sober Hungarian mathematical planners — that no single "true" model does exist. What is needed is, in fact, a system of models; partly models completing each other, which reciprocally use each other's results and partly "competing" models, which are suited for the checking and correcting of one another.

I do not believe that Bródy's models could occupy a central place in a system of planning models. As a matter of fact, some of his assumptions are too strict. The most restrictive assumption, which sets a limit precisely to the model's applicability in planning, is that the technological choices have to be made outside the model. The completely closed character of the model, as I have already stressed, means that there are no externally given bounds, scarcities, initial states that would delimit the course of the economy. Thus the model is not suited for planning the structural changes of the economy, those in the structure of inputs and outputs.

However, in spite of these limitations, the model may be a useful tool of analysis and checking, mainly in the planning of growth rates. Computing the maximal growth rates to be derived from the model may save us from a mistake frequently made in planning, namely, from overestimating the possibilities of accelerating the rate of growth.

Although there are many other questions that could be discussed, the mentioning of the above four problems will suffice to indicate the character of the arguments to which Bródy's work may give rise. Economic literature is full of shallow works which do not encounter resistance in the reader's mind because they do not contain a single provoking idea. Bródy's merit is that he raises exciting problems which stimulate (I may even say, compel) us to thinking; he is provoking — in the best sense of the word. That is why his work deserves attention and thoroug study.

J. KORNAI

Reform of the Economic Mechanism in Hungary. Ed. by I. FRISS. Budapest, 1969. Akadémiai Kiadó. 274 p.

In recent years the Eastern European socialist countries introduced minor or major economic reforms. These efforts

at a reform have aroused the interest also of those outside the boundaries of the countries, in question, both of specialists and individuals interested in the problems of social sciences.

This applies also to the reform of the Hungarian economic mechanism implemented on January 1st, 1968.

— How can these efforts at reform be valuated?

— What change does the reform involve in the established system of production relations, to what extent is it a continuation of the old type of management and to what extent is it the starting point of an entirely new type.

— Does the rehabilitation of the market, commodity and value categories and their increasing role mean a renouncing to planned economy or socialism?

Such and similar general questions and those concerning the practical details of the reform call for an answer. The volume of studies published in English under the title "Reform of the Economic Mechanism in Hungary" is intended to answer these questions.

The volume of studies edited by academician István Friss contains nine separate studies. The authors of the studies — representatives of Hungarian economic and scientific life — have all played an important role in working out the economic reform and are thus competent to provide information for those interested in the subject. The studies are the following:

1. István Friss: Principal features of the new system of planning, economic control and management in Hungary,

2. István Hetényi: National economic planning in the new system of economic control and management,

3. Tamás Morva: Interrelations between national and enterprise planning,

4. Sándor Ganczer: Application of mathematical methods in planning,

5. Ottó Gadó: The new system of trade in production goods,

6. Béla Csikós-Nagy: The new Hungarian price system,

7. Béla Sulyok: Major financial regulators in the new system of economic control and management,

8. Jenő Wilcsek: The place and functions of state-owned enterprises in the new system of economic control and management,

9. Sándor Ausch: International division of labour and the present forms of economic mechanism in the CMEA countries.

Already the titles of the nine studies show that the volume intends to give a full-cross-section of the reform.

The choice of the subject of the introductory study was based on the consideration that an elucidation of the reform from several aspects requires that the principles and major features of the system should be outlined at the outset.

This first chapter treats the fundamental traits of the new system, the planned control of the economy, the securing of simple and extended reproduction, the establishing of equilibrium between purchasing power of the population on the one hand and commodity supply on the other, the questions of equilibrium of the balance of trade and payments, of the state budget, those of investments, technical development, enterprise profits and incentives and the development of socialist democracy. Approaching the character of the reform as a "controlled market mechanism" requires that the introductory theoretical essay should focus attention on the macroeconomic problems of control.

This intention may be traced also in the selection of the subjects for the other studies. Three studies deal with presenting the various aspects of national economic planning, and two with the economically most important tools of control, the price and financial regulators.

Thus, a description of the market functions themselves remains essentially the task of the study reviewing the new methods of trade in the means of production and of the one treating the situation of the entreprises. The important prob-

lems of income control, the credit and investment systems, the financial control of foreign trade and other crucial problems of financial policy had to be congested into a single article. A study of 28 pages cannot undertake a review of these problems in a satisfactory form since a comprehensive review of each of the problems listed would call for a separate study. Such important elements of the reform as customs policy, amortization policy, etc. are dealt with only cursorily. As opposed to that, the application of mathematical methods in planning is dealt with in a separate article, though it is less relevant in connection with the reform.

Finally, I wish to call attention to the last study in the volume, which — owing to its character — must look for the ways of solution beyond the review. As a matter of fact, the full unfolding of the Hungarian reform relying on a regulated market mechanism will affect also the present practice of the socialist division of labour. The most important message of the study lies in pointing out the contradictions between the internal mechanism relying on a controlled market and the international division of labour based on direct plan instructions, and in showing a way to eliminate them.

M. MANDEL

AUSCH, S.: *A KGST-együttműködés helyzete, mechanizmusa, távlatai.* (Position, mechanism and perspectives of CMEA-cooperation) Budapest, 1969. Közgazdasági és Jogi Könyvkiadó. 308 p.

AUSCH, S.: *Bilateralism and multilateralism in the CMEA.* Budapest, 1969. Institute of Economics, Hungarian Academy of Sciences. 64 p. (Studies 1.)

The first mentioned book, published recently in Hungarian, treats a subject which has rightly shifted lately into the centre of interest and discussions in the socialist countries. The reason is that it is now being ever more widely recognised that partly on account of the deficiencies in the development of economic cooperation among the CMEA countries, and partly on account of the internal transformations in course in the economic mechanism of member countries, it has become a historical necessity to make some changes in the international economic relations among these countries. Undoubtedly, the new — socialist type — international economic relations have advanced the evolvement of the socialist economic system, the fast increase and development of productive forces, and the structural changes in the European countries in which the socialist revolution took place after World War II. Therefore the economic cooperation of the CMEA countries has been very fruitful in some respects and this fact is emphasised by Sándor Ausch. Nevertheless, beside the positive characteristics, negative elements have appeared in increasing number and the development of the labour division and cooperation among the European socialist countries is beginning to be hampered seriously by the form, the actual system and mechanism of their mutual economic relations. In these circumstances it would have been, of course, more comfortable and prudent on the author's part to choose the method often practised, i.e., to weigh the results and faults on a precision scales and to take good care of the "adequate" proportions in the treatment of the subject. Sándor Ausch would not do that; on the contrary, with a genuine intention to improve, and in accordance with the critical spirit of Marxist economics he unmasks sharply and mercilessly the deficiencies of present conditions, and the roots of the troubles, pointing out the main, inevitable directions of the actions and changes to be effected.

In the literature on the subject, Sándor Ausch's book is the first to treat comprehensively the difficulties and troubles with the economic mechanism, which are encountered in increasing number in the real processes of the labour division and cooperation

among the CMEA countries and he provides ample proof of the fact that these difficulties and troubles are caused by this economic mechanism, so the key issue of further developing international economic cooperation is to reform the economic mechanism.

In this detailed analysis, the author points to the connections existing among the several deficiencies of the *international* economic relations of the CMEA countries and demonstrates, how this model of international socialist economic mechanism results, inevitably, from the direct (centralized) model of the i n n e r economic system of the member countries. The essence of the objective connections is that in each socialist country a strong i n n e r limitation on the active role of commodity relations and their categories necessarily prevents these relationships and categories from becoming effective, and functioning as would be suitable, in fact indispensable, in *international* economic relations.

The author is the first to apply to the subject the very effective method of comparing the problems of the development and mechanism of socialist economy to those of the capitalist countries, aiming at exploiting and utilising the experiences of past and present development of capitalistic international economic relations. With suitable selection, the author makes also use of the propositions of bourgeois economic theories concerning international economic relations.

The first five chapters of the book treat the division of labour and the international cooperation of CMEA countries from the point of view of the real processes. The author starts from the point that economic integration — which he would consider as a historical process, and treat in a wide sense — had, also in past times, a favourable effect on the economic development of the countries or areas concerned. The author gives an interesting example when describing the beneficial economic influences on Hungary of the integration within the Austro-Hungarian Monarchy before World War I, and on the part of Poland while belonging to Russia, contrasting this process with the economic disintegration of Europe in the period between the two world wars.

Sándor Ausch points out that the system of the socialist economic cooperation of the CMEA countries, established in the early fifties' had great advantages for the relatively under-developed, fast industrializing, small-area member countries, mainly because it created a stable market for their increasing exports of finished products and allowed, also through steady channels, the satisfaction of the demands for raw material of a rapidly growing industrial production. On the other hand, the author points out that the s t a n d a r d of this international labour division has not developed in the right way. In each CMEA country the share of exports in national income is significantly smaller than in any capitalist country of a similar area, population, and stage of development; in the CMEA countries the specialisation by branches and products is low in almost every area of the economy; the import ratio of domestic machine utilisation is especially low and so is the specialisation of machine industry in parts and units of parts. These negative elements in the development of international labour division had their part in that it was the extensive factors (quantitative increase of live work and of locked-up funds) that prevailed and that in the course of development, economic efficiency has become unfavourable.

The book then gives a brief, general characterisation of the present mechanism of the socialist world market (Chapter VI.). This can be summed up as follows: a lack, or a limited presence of the factors given here under: a) the active role of commodity relations and of their categories; b) the objective fixing of prices by production and market conditions; c) real currency to fit the role of a universal equivalent; d) a relatively free international fluctuation of the production factors. The general characterisation is detailed and correct. As

regards the definition of the present *main contradiction* in the economic cooperation of theCMEA countries, I think it extremely good and pointing to the essential: "In the actual situation the main contradiction in the cooperation of the socialist world market, of the CMEA countries is the limited prevalence of the market categories and rules, originating already from the inner economic system". (pp 68—69). The book goes on to present the different manifestations of this main contradiction.

The author first deals with the foreign trade and foreign trade prices in the present mechanism of the international economic relations among the CMEA countries. In Chapter VII he describes extensively the features characterizing the system of contractual prices prevailing in the foreign trade among CMEA countries, and the reasons therefor. He points out that in the different relations of the foreign trade among socialist countries the contract prices of finished products largely differ from each other, as well as from the world-market prices. The author proves convincingly the surprising thesis that the basis of calculating the socialist contractual prices for finished products has been, for a long time, the home price and that this particular feature of the price system has, as a matter of fact, subsisted to our days, although with some amendments, in relation to the greater part of the products. He reveals the fact that the level of the socialist contractual prices — with comparison made on basis of the official gold parity of the dollar and rouble — is above the world market level — with agricultural products only slightly, with raw materials a little more considerably, and with machines highly so, and he reveals the causes, inherent in the mechanism, of this apparently paradoxical phenomenon (since in the regional market of the CMEA countries there is a shortage of raw materials, an excess of machines). The features characteristic of the contractual prices prevailing in the foreign trade, and the general features of the whole cooperation mechanism, as well as the efficiency problems of socialist national economies now revealed make it clear why the socialist countries make efforts in their bilateral connections to demand "hard" articles against supplying such, and why they make acceptance of "soft" articles dependent on their partners' taking such articles. The conflict created by overall efforts to increase exports of finished goods and imports of the necessary raw material is eased by the raw-material-exports and finished goods-imports of the Soviet Union.

After an investigation into the present mechanism of foreign trade and into the prices prevailing there, the author goes on (Chapter VIII) to try to outline the working of a future mechanism, to be established in the foreign trade among CMEA countries, and some features of this working, related to such socialist countries as have *supposedly* changed over to the indirect (decentralized) system of socialist economy, or, as the author says, to the regulated and planned socialist market economy.

The two chapters that follow (IX and X) — a preliminary version of which has been translated to English and presented in a separate booklet cited above — go into the much disputed problems of bilaterality, multilaterality, and convertibility. After a thorough analysis of the development having taken place in the economic relations among *capitalist* countries, the author proves extensively — taking into consideration and refuting all sorts of counter-arguments — that the realisation of the change-over to multilaterality, to the real transferability of the rouble within the clearing area, and to the reciprocal convertibility of socialist currencies necessitates the establishment in the socialist countries of the indirect model of economy, the ensuring of unequivocal relations between home- and foreign trade prices through the rates of exchange, a sufficient freedom of decision for foreign trading entreprises, the compensation in gold or in convertible currency of at least a part of

the deficits within the clearing area and, finally, the surmounting, with supplemental means — (loans), of structural difficulties that appear — in some countries sharply — with the change-over. It appears that in the relations among the CMEA countries it is not possible to change over to multilateral trade and payment, to transferability and to convertibility of different degrees with only partial measures, such as financial reforms. A steadily advancing process, with a long-range plan, must be realised, in which the different elements are in close interrelation.

Further basic problems are treated in the chapters (XI, XII and XIII) on specialisation, co-operation, co-ordination of national economy plans, and on sovereignty and cooperation.

I think Sándor Ausch is right in stating that the main reason for the non-sufficient advancement of the international specialization among the CMEA countries is that the producing and consumer *entreprises* are not interested in it at present, their interest may even be opposite in many cases in the present mechanism. It is in such concrete conditions that the conflicts of interest appear which, in the field of specialization, are to be found always between small and big, advanced and backward countries. The therapy suggested suits this diagnosis: it is by a change-over to planned and regulated socialist market economy that the situation must be created in which the entreprises themselves, and their international unions are the main carriers of the efforts of specialization and cooperation. This must be completed by the possibility of exporting active capital among socialist countries, because the development of adequate sectoral and product specialisation can be greatly promoted by direct foreign investments made upon basis of mutual advantages, in the first place by the investments of developed socialist countries in the less developed ones.

However, the entreprises and the integrated CMEA market alone cannot solve every problem. International planning and regulation, establishment of suitable institutions are needed. The competent analysis of the related problems shows clearly that it is not the creation of a sort of international free-market mechanism which Sándor Ausch has in mind, and he emphasises — beside the "negative integration" as *Tinbergen* says — the "positive integration" among socialist countries, which is feasible on account of the socialist property of the productive means and of the socialist character of the countries in question.

Sándor Ausch's book is rich in ideas, a pioneer work in its domain, which contains important new scientific results. He looks for and finds the theoretical solution to practical problems in a way which is best described in *Rezső Nyers*'s words: "The main principle of the method used so far was coordination by governments, while the new method is to combine the latter with the economic incentive role of integration. This in an essential difference between the two methods and a difference not of degree but of quality. There is an invisible *Rubicon* between the two systems which we have to cross if we want to leave one for the other"

T. NAGY

Acta Oeconomica Academiae Scientiarum Hungaricae, Tomus 4 (1), pp. 435—449 (1969)

BIBLIOGRAPHY

PUBLICATIONS OF HUNGARIAN ECONOMISTS IN FOREIGN LANGUAGES[1*]

1. January 1968—30. June 1969

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Introduction

To collect materials for a bibliography on publications written by compatriote authors in other languages than their mother tongue is a curious task for the bibliographer. We got this idea while trying to assess the informative value of the Acta Oeconomica. This has led to the obvious result that a quarterly alone would be in any case unable to give an adequate picture of the state of economic science in a country. The second question we raised was whether there exists an overall information on this subject in any other form. We have to confess, how shocked we were by the extent of these informations.

[1*] This bibliography is a first attempt in Hungary at collecting data on publications written by Hungarian economists in foreign languages. It can not be taken as a complete list because 1) articles in newspapers and weeklies, 2) publications in languages other than English, French, German, Italian, Russian and Spanish, 3) studies and communications published in the Acta Oeconomica, 4) book reviews, 5) parallel publications by the same publisher in languages other than English resp. Russian had been omitted, 6) publications on economic history, economic geography and engineering economics are generally also neglected. The bibliography, because of deficient information possibly does not contain the total even of those items which we intended to include. Therefore, comments will be especially gladly received and supplements published in the next volume.

The material had been collected by Miss *A. Tuszkau*, Librarian em. of the National Bank of Hungary, and the bibliography was compiled by *T. Földi*. — Our acknowledgements to those institutions and authors who helped the labourious work of collecting and especially to Mrs. *K. Ferenczy* head of Documentation Group of the Institute of Economics Hung. Acad. of Sci., who gave a complete list of the respective publications by the Institute's staff and a significant part of information on other materials.

Acta Oeconomica published in the period covered 30 studies and 14 other communications. From other sources — within the limitations given by Footnote[1]* — it succeeded to collect fourtimes as much. About half of these publications appeared abroad, mainly in journals of international agencies and in publications of the Soviet Union and the German Democratic Republic. Quite a significant part of these publications appeared in Western countries, in Austria, France, Great Britain, Italy, the German Federal Republic and the United States etc. The bibliographer has to admit that the old tool, national bibliography, in the age of internationalization of science is no more able to reflect completely a nation's literary achievements.

This bibliography is by its nature a selected one as far as the whole Hungarian literary production in economics is concerned. Taking into account that the total number of publications of the mentioned sort is about 700—800 a year, the quantitative representation is rather high, about 10—15%. The thematic representation is determined by the nature of the foreign language publications. These sorts of publications are of selective character. Points of views of selection are numerous, but in no case do we find an effort to present a proportionate selection. Therefore these publications do not represent all scientific efforts in the field of economics in Hungary. It should be mentioned besides, that there is definite time lag in foreign language publication as compared with the original Hungarian one or the emergence of the ideas in the country itself. The rather great number of articles on economic reform and their content e.g. reflect, in the most cases, the literary production of the previous year.

Beside these considerations it is an even more important goal of this bibliographic research to give to our colleagues abroad a more or less complete list on the accessible — from a language point of view — literature on Hungarian economy and economics.

The first volumes of the International Bibliography of Economics show that 10—15 years ago the almost only accessible literature on Hungary — for those who read only in Western languages — consisted of publications by sovietologists and emigrants. Nowadays the scene is quite different. Although the latter did not vanish, step by step those authors who may be regarded as authentic, who know the inside story too, have appeared in the international literature.[2]*

With these remarks we do not want to underestimate all the publications written on Hungarian economy by foreigners, especially not those which appeared in other socialist countries or were written by those Western scholars who honestly try to find the characteristic features and problems of planned economics. Their efforts are directly or indirectly valuable contributions to information on Hungary sometimes even to the analysis of our economic problems.

Let us close these introductory remarks with the wish that this modest bibliographical contribution may become itself a tool of more reliable information on Hungarian economy, economics and perhaps economists, too.

[2]* At this point we have to mention another limitation 7) of the collection. The adjective "Hungarian" refers in this bibliography to economists actually living in Hungary. Even those authors had been disregarded who stay transitorily — for some years — abroad in international service or as visiting scholars, experts etc.

Sources

As stated above, about the half of the publications listed later appeared in foreign sources. Most of these sources are internationally well known and need no presentation. Therefore, the following short information on sources is focussed at Hungary and at some international publications appearing in socialist countries.

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[3*] The regularity of publication is marked by the following signes: Irreg. = irregular, (1) = yearly, (2) = half-yearly, (4) = quarterly, (6) = bimonthly, (12) = monthly.

[4*] L. = language of publication.

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Classified List

The entries of the bibliography are classified according to a rough scheme. Each entry figures only at a single place, even when it does contain heterogeneous subjects. Nevertheless by the number of the entry a reference is made at the beginning of the adequate class. Within a class, entries are grouped as follows: comprehensive works and monographies; collections of studies; series; articles. Within a group entries are ranged according to an alphabetic order.

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A kiadásért felel az Akadémiai Kiadó igazgatója — Műszaki szerkesztő: Farkas Sándor

A kézirat nyomdába érkezett: 1969. XI. 18. — Terjedelem: 10,50 (A/5) ív, 5 ábra

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28. II. 1970 **Index: 26.031**